THE SINGLE SALARY SCHEDULE

AN ANALYSIS AND EVALUATION

By
LYLE L. MORRIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY, IN THE FACULTY OF PHILOSOPHY, TEACHERS COLLEGE, COLUMBIA UNIVERSITY

BUREAU OF PUBLICATIONS
Teachers College, Columbia University
NEW YORK CITY
1930

ACKNOWLEDGMENTS

The author is deeply indebted to Dr. W. S. Elsbree, Dr. J. R. McGaughy, and Dr. J. H. Newlon, of Teachers College, and Dr. J. K. Norton, Director of the Department of Research of the National Education Association for their continued advice and assistance. He also wishes to express his gratitude to the members of the Committee on the Economic Status of Teachers of the National Education Association for their support and to the Superintendents of Schools who so freely gave their attention to inquiries.

L.L.M.

CONTENTS

CHAPTER		PAGE
I.	Definition and Analysis of Problem	1
II.	The Single Salary Schedule and the Training of Teachers	7
	Summary	28
III.	Experience and Merit as Factors in the Single Salary Schedule	30
	Summary	35
IV.	The Financial Question	37
	Summary	58
V.	Administrative Practice	60
	Summary	71
VI.	Summary and Recommendations	72

THE SINGLE SALARY SCHEDULE

AN ANALYSIS AND EVALUATION

▼

CHAPTER I

DEFINITION AND ANALYSIS OF THE PROBLEM

In the teaching profession there is always an interest in salaries and salary schedules. This interest may be selfish or otherwise, but it exists, nevertheless, among the teachers and among the administrators who must apply any salary schedule that is in operation.

A type of schedule that has been received with great acclaim in some quarters and denounced with equal vehemence in others is that known as the Single Salary Schedule. In tracing the history of this form of schedule, the first reference that may be thought of as referring to it is to be found in *Addresses and Proceedings of the National Education Association,* Madison, Wisconsin, 1884. Thomas W. Bicknell, LL.D., then president of the Association, in his presidential address made the following statement and prophecy:

> One of the surest remedies for the removal of poor teachers in a community is the advancement of salaries. That community will then seek better talent, and the better talent will then seek the better pay. My impression is that its arrangement will follow something this line of movement:
>
> 1. The best talent and largest experience will be found in our primary grades of school.
>
> 2. Our best primary teachers and our best high school teachers will receive equal salaries and these, the maximum.
>
> 3. A sliding scale of salaries will be adopted, based upon qualifications and experience, ranging from a minimum for beginners to a maximum for the well established and successful instructors.
>
> 4. These salaries will never be subject to a decrease during the term of office of any incumbent.
>
> Give to our teachers a scale of salaries which shall recognize grades of qualification and experience, make the ultimate salary one to which the best talent will be ambitious to aspire, and, if you please, confer a life annuity at the end of a given term of service—say twenty or twenty-five

years—and we shall have laid the foundation for a permanent rather than a floating profession.[1]

This was probably the first public pronouncement of the single salary idea. Little more was heard of it until 1918-19 when Evenden made his study of teachers' salaries and salary schedules under an emergency commission of the National Education Association. In this study a form of single salary schedule was again proposed as being the most desirable type of schedule. Evenden expressed some fear of possible consequences and recommended that it be made flexible enough to permit special adjustment to individual cases.[2]

Whether as a result of Evenden's study or because of the result of a general feeling of need for salary revision, a number of cities almost immediately adopted single salary schedules. In 1920, Lincoln, Nebraska, Denver, Colorado, and Sioux City, Iowa, led the way and were followed by Des Moines, Iowa, Colorado Springs, Colorado, and Minneapolis, Minnesota.

The *Biennial Survey of Education for 1920-1922* names thirty-two cities as having at least some features of the single salary schedule. These cities are centered in the upper Mississippi Valley but the West and South are represented by Spokane, Washington, Raleigh, North Carolina, and Roanoke, Virginia. The report goes on to state:

> The tendency is undoubtedly toward a salary schedule that recognizes professional preparation and provides for equal pay for equivalent preparation and experience.[3]

By 1925, ninety-one cities were using single salary schedules and in 1927 the Research Division of the National Education Association found 165 cities in thirty-five states classified as single salary cities.

While there was considerable variation in the elements included in these schedules, each recognized the two principles that teachers with equal training and experience should receive the same pay and that teachers in similar positions with increased amounts of academic and professional training should receive increased salaries.

[1] *Addresses and Proceedings of the National Education Association*, p. 49, Madison, Wisconsin, 1884.

[2] Evenden, E. S. *Teachers' Salaries and Salary Schedules in the United States, 1918-19.* Commission Series, No. 6. National Education Association, Washington, D. C.

[3] U. S. Bureau of Education. *Biennial Survey of Education in the United States, 1920-22.* Vol. 11.

Since 1920 many addresses have been given and many articles written upon the subject. Some define the schedule rather loosely, while others, by the addition of further elements, make it a very definite scale by which a teacher's salary may readily be determined when her training and experience are known.

E. E. Lewis, then Superintendent of Schools in Flint, Michigan, in an address before the Department of Superintendence in 1926, defined the single salary schedule as follows:

> The phrase "basic single salary schedule" means a schedule of salaries covering all classroom teachers in kindergarten and grades one to twelve, inclusive, regardless of sex, position, grade, or subject taught. It means equal pay for equal work, equal merit, equal length of service and equal academic and professional preparation. The term "basic" means that the single salary schedule for teachers is the one used as a basis for the building of salary schedules and for all other groups of personnel.[4]

This definition contains two ideas that have caused considerable controversy in regard to the single salary schedule. The first is that pay is to be the same for both sexes and the second is that merit should be included as an element in determining the teacher's salary. Many schedules include equal pay for men and women but an increasing number are definitely stating that men are paid more than women. In regard to merit, the typical single salary schedule does not include it in salary determination. More will be said upon these two points later.

The salary schedule of Peru, Indiana, contains in easily understood terms a definition of the local salary schedule. It contains the generally accepted principles of the single salary schedule.

> "A single salary schedule" is based upon the principle that teachers with equal qualifications should receive equal salaries. If a teacher in the grades has qualifications equivalent to those of a high school teacher, and prefers grade work, she should be encouraged to remain where she is by giving her a salary equal to that of the teacher in high school.
>
> A salary schedule of this type will tend to make teaching a profession. It recognizes the value of training and experience, discourages the employment of teachers with less than the accepted minimum training, and makes no distinction in salaries between the work in the grades and high school. It is hoped that the following single salary schedule will help to attract, to hold, and to encourage teachers in the profession.

Regardless of the wording of the definition, the fundamental principle back of the single salary schedule is that the salary paid

[4] Lewis, E. E. "The Single Salary Schedule" *Department of Superintendence, Official Report*, pp. 213-17, February, 1926.

to a teacher should be directly proportional to her worth as a teacher. When it is written in a schedule that more training possessed by a teacher will increase her pay, it is assumed that the amount of college training that a teacher has had is at least one tangible measure of that teacher's worth to the school system. Additional increments for experience indicate the belief that a teacher's worth increases year by year as she continues teaching. Some schedules require an efficiency rating in addition to other measures. Others insist that a teacher shall secure more training each three- or five-year period in order to secure the increase in salary. Each of these is a device set up for measuring the worth of the teacher in order that the salary may be adjusted accordingly.

Paying a third grade teacher the same salary that is paid a high school teacher of history of equivalent training and experience is based upon the assumption and belief that one is worth as much as is the other. Likewise, in those cities paying men and women equal salaries, it is believed that sex makes no difference in the value to the school system.

We find, then, numerous gradations of meaning given the single salary schedule. For the purpose of this study, it has been defined quite liberally and yet simply. A single salary schedule is any schedule of teachers' salaries that attempts to measure all teachers in the system by the same scale, whatever elements may be included, and pays them accordingly.

As was stated before, many have spoken and written upon the single salary schedule since Evenden's study. Some have presented arguments favoring the plan while others have argued that the single salary schedule was an unwise solution of the salary problem.

Among the arguments advanced by those favoring the adoption or the continued use of this type of salary schedule are the following:

1. It gives equal pay for equal training and experience and so encourages the elementary teacher to advance in the same field instead of attempting to move up to the high school.
2. It gives equal pay for men and women for the same service.
3. It is easy to operate.
4. It eliminates class consciousness.
5. It contributes strongly to the feeling of unity and satisfaction in the corps.

6. It promotes tenure.

7. It attracts superior ability and training to the elementary school and gives the teachers a higher appreciation of their services.

8. It emphasizes high standards of attainment and encourages professional study and growth, producing more efficient teaching in every grade.

9. It permits transfer of teachers without financial loss from positions for which they are not adapted to others in which they can render better service.

Opponents of the single salary schedule say:

1. It is a subterfuge and used by the administration because it eliminates the necessity of rating teachers and paying according to merit.

2. Elementary teachers do not need as extensive training as do teachers of the junior and senior high school.

3. Training is not the chief characteristic of the good teacher.

4. It is contrary to the law of supply and demand.

5. If the salary is adjusted to the present level of women teachers, or if it is somewhere between the salaries of men and women, men will not remain in the profession. If it is adjusted to the level of men's salaries, the cost will be excessive.

6. The cost will be excessive in any case.

For the most part these statements have been presented as mere arguments that have seemed reasonable to the ones uttering them and have been supported by little or no scientific evidence. Some have considered the reasoning for the single salary schedule more sound while others see more merit in the contentions of the opponents. On the one hand, the esprit de corps of the teaching staff has been emphasized while, on the other hand, the cost and the effect upon the percentage of men in the teaching profession have been considered dominant factors.

As to the effect of the single salary schedule upon the morale of the teaching staff this study presents no evidence. The attitude of the teachers in a school system depends largely upon the local policies of administration and, to secure the desired effect, a salary schedule must be built according to the local needs.

No attempt is made to argue that the training of the teachers should be increased in the elementary school or in the high school. There are those who attempt to state the optimum amount of collegiate training for teachers of the several departments of the school and contend that the elementary teacher does not need as much training as does the high school teacher.[5] The

[5] Staffelbach, Elmer H "Some Economic Implications of the Single Salary Schedule." *American School Board Journal*, Vol. LXX No. 2, pp. 41-42, February, 1925.

argument seems to be that the elementary teacher needs method primarily and little subject matter while the high school teacher needs an equal amount of training in method and an increased amount of subject material. This problem must be solved by another study. The present study does not present evidence to show how well trained are the teachers in those cities having the single salary schedule when compared with teachers in other cities. In the light of the data presented, the school authorities employing teachers must decide upon the value to be placed upon training and adjust their salary schedules accordingly.

The evidence presented here has been gathered from printed documents of the United States Bureau of Education, from material collected by the Research Division of the National Education Association, and from questionnaires sent out to selected cities.

A list of cities using some form of single salary schedule was made up from data collected in 1927. This list was matched by a similar one, except that the single salary had not at that time been put into use. Some of the cities of the first list have had the schedule in operation for eight or nine years while others have used it only three years. A few cities studied have adopted the schedule since 1927. These have been considered as not having the single salary schedule except in cases where the data were for 1928-29.

The principal points taken up in this presentation are the amounts of academic and professional training of teachers and the possible effect of the single salary schedule thereon, the recognition of merit as an element in the schedule, the cost that may be attributed to the use of such a schedule, and its administration. One would expect the single salary schedule to effect an increase in the amount of training possessed by the teachers working under it. If this takes place, the cost should increase because of direct reward for increased training. This latter result brings increased problems to the administrator who must guard against undue expenditures as well as work for the best school system possible.

CHAPTER II

THE SINGLE SALARY SCHEDULE AND THE TRAINING OF TEACHERS

"The more and better the academic and professional preparation that a teacher has, other factors being equal, the more salary he should receive. . . . A year's training may not always mean exactly the same but it is a more constant and better defined measure than many other elements affecting the salary of teachers." [1]

The single salary schedule definitely proposes to govern the amount of the teacher's salary by the amount of academic and professional training already secured and to increase that salary as the amount of training is increased. The salary gradations vary considerably but each single salary schedule provides a definite increment for increased amounts of training beyond the minimum requirement.

The unit of training recognized in the schedule may be one six weeks' summer season of study, a half year, or fifteen semester hours, a full year which is most common, or sometimes even larger units in which recognition is given only to the two-year normal school diploma or its equivalent, the Bachelor's degree, and the Master's degree.

The increment of salary increase varies the same as does the unit of training but the typical amount is $100 increase for each year of college credit presented. In some schedules no distinction is made between those having four years' training without the Bachelor's degree and those having the degree, while in others there is a considerable difference in the amounts paid to the two classes of teachers. The Master's degree is generally considered simply an added year of training and the salary is adjusted accordingly, and the Doctor's degree seldom receives any additional increment.

[1] Lewis, E. E. "The Single Salary Schedule." *Department of Superintendence, Official Report*, February, 1926, p. 215.

Several of the variations are illustrated in the following six excerpts from selected salary schedules:

(*a*) The schedule is based upon a starting point of $850. To this amount an additional allowance of $50 is made for each year of experience and $150 for each year of educational preparation beyond graduation from a standard four-year high school course, subject to the following conditions.

(*b*) The minimum salary for high school teachers is $1,500. This means that the preparation and experience of the high school teacher must be such as to entitle such teacher to receive at least $1,500 under this schedule in order to be eligible for election.

* * * * * *

Subject to the additional rules hereinafter contained, for each eight semester hours of work completed by any teacher employed by the . . . School Board, either in residence or in extension courses, at a college or university accredited by the . . . State Department of Public Instruction, an increase of $50 per annum shall be granted in addition to any other increases in salary, provided that no teacher shall receive increases for credit in excess of $300 per annum.

Subject to the additional rules hereinafter contained, all teachers employed by the . . . School Board holding or upon receiving a Master's degree conferred upon them by a college or university accredited by the . . . State Department of Public Instruction, shall be granted an increase of $300 per annum in addition to any other increases in salary, provided that no teacher shall receive increases for credit in excess of $300 per annum.

* * * * *

TEACHERS' SALARY SCHEDULE

CLASS	0	1	2	3	4	5	6	7	8, etc.
2 -year Normal ...	1,000	1,100	1,200	1,250	1,300	1,350	1,400	1,450	1,500
2½-year Normal ...	1,100	1,200	1,300	1,350	1,400	1,450	1,500	1,550	1,600
3 -year Normal . .	1,200	1,300	1,375	1,425	1,475	1,525	1,575	1,625	1,675
3½-year Normal ...	1,300	1,400	1,450	1,500	1,550	1,600	1,650	1,700	1,750
College Degree	1,400	1,500	1,550	1,600	1,650	1,700	1,750	1,800	1,850
Degree + ½ Year...	1,500	1,600	1,650	1,700	1,750	1,800	1,850	1,900	1,950
Master's Degree	1,600	1,700	1,750	1,800	1,850	1,900	1,950	2,000	2,050

* * * * *

The minimum and maximum salaries for the four classes shall be as follows:

Class	Minimum	Maximum	Annual Increment
Class A. Normal Graduates	$1,100	$1,900	$ 80
Class B. Three-year Normal	1,250	2,330	90
Class C. College Graduates	1,400	2,800	100
Class D. Five-year College	1,550	3,200	110

* * * * *

Class	Minimum	Maximum	Annual Increment
2-year College or Normal	$1,200	$2,300	$100
2 years + 15 Points	1,200	2,600	100
3 years College	1,200	2,700	100
3 years + 15 Points	1,200	2,800	100
Bachelor's Degree	1,550	3,500	150
Bachelor's Degree + 15 Points	1,550	3,650	150
Master's Degree	1,550	3,800	150

* * * * *

The salary schedule shall be as follows:

Class	Minimum	Maximum
A. Two-year Graduates	$1,100	$2,000
B. Three-year Graduates ...	1,200	2,100
C. Bachelor's Degree	1,300	2,200
D. Master's Degree	1,400	2,400
E. Doctor's Degree	1,500	2,600

* * * * *

These schedules represent the several types. The increase in salary for the increase in training is different in each case but the fundamental principle behind all of them is the same, namely, further training should be encouraged.

This encouragement of academic and professional training is

one of the primary purposes of the single salary idea. This purpose is directed more particularly toward the elementary school in that the elementary teacher who has hitherto been less well trained than the high school teacher receives equal pay for equivalent training. With the financial encouragement offered to all teachers who do not already have the maximum training to increase their training, one would expect to find more highly trained teachers in those cities in which the single salary schedule has been in operation than in other cities. The difference should be especially noticeable in the elementary schools and the spread between the training of the elementary teacher and that of the high school teacher should be considerably lessened.

Further encouragement to training is frequently offered by granting leaves of absence for study, sometimes with pay, sometimes without. If a teacher may leave his or her position to take additional work at college with the assurance that a position awaits when the period of study is over, there is much greater likelihood that such study will be undertaken.

Practices in regard to granting leave for professional study are reported for fifty-one single salary cities and forty-seven cities having regular salary schedules in Tables 1 and 2. In each group of cities 75 per cent grant leaves of absence for the purpose of study. In very few cases, however, is any salary paid during the period of leave, only 13 per cent of those in the single salary group and 9 per cent of those in the second group granting any pay during the period of absence. In this respect, we find one group of cities offering as great encouragement to further training as the other.

The training required of entering teachers is practically the same in the two groups of cities, there being about the same variation in each group. For the entering elementary teachers, all of the single salary cities reporting required a minimum of two years beyond high school and only four of the regular salary group admitted teachers with less than this amount of training. In the case of the junior high school teachers, 43 per cent of the single salary cities require a minimum of four years' training beyond high school and 62 per cent of the parallel group have the same minimum. The requirement for the high school teachers is higher in more cities, there being 94 per cent of the single salary group and 91 per cent of the regular salary group requir-

TABLE 1

Encouragement to Increased Training—Single Salary Cities

Key: Column I Do you grant leaves of absence for study?
Column II. Part of Salary paid: 1, Full salary, 2, Half; 3, Full less substitute's pay; 4, Other fraction; 5, No salary
Column III. Is there a direct reward for summer study?
Column IV Is there a direct reward for school-year study?

City	I		II					III		IV	
	Yes	No	1	2	3	4	5	Yes	No	Yes	No
Denver, Colo.	X						X		X		X
	X							X		X	
	X						X	X		X	
	X						X		X		X
n.	X			X					X		X
	X						X	X		X	
San Antonia, Tex.		X							X		X
Spokane, Wash.	X						X	X		X	
Berkeley, Calif.	X						X		X		X
San Diego, Calif.	X						X		X		
Rockford, Ill.	X						X	X		X	
Hammond, Ind.		X						X			X
Terre Haute, Ind.	X				X			X			X
Kalamazoo, Mich.	X					X		X		X	
		X						X		X	
		X						X		X	
Springfield, Mo.		X						X		X	
Lincoln, Nebr.	X						X		X		X
Muskogee, Okla.	X						X	X		X	
Oklahoma City, Okla.	X						X	X			X
Petersburg, Va.		X							X		X
Green Bay, Wis.	X						X	X		X	
	X						X	X		X	
	X						X	X		X	
	X						X		X		X
		X						X		X	
Calif.	X						X	X		X	
Ill.	X						X		X		X
Elgin, Ill.	X						X	X		X	
Elwood, Ind.		X						X		X	
Peru, Ind.	X						X	X		X	
Richmond, Ind.	X						X		X		
Atchison, Kans.		X						X			X
Coffeyville, Kans.	X						X		X		X
Hutchinson, Kans.	X						X		X		X
Lawrence, Kans.	X						X	X			X
Salina, Kans.	X						X	X		X	
Ann Harbor, Mich.	X			X				X		X	
Rochester, Minn.		X						X			X
		X						X			X
	X						X		X		
	X						X	X		X	
	X						X	X		X	
		X							X		
	X						X	X		X	
		X						X			X
	X						X		X		X
	X						X	X		X	
	X						X	X			X
Total	38	13	0	2	1	1	33	33	18	25	26

TABLE 2

Encouragement to Increased Training—Regular Salary Cities

Key. Column I Do you grant leaves of absence for study?
Column II. Part of salary paid. 1, Full salary; 2, Half; 3, Full less substitute's pay; 4, Other fraction; 5, No salary
Column III. Is there a direct reward for summer study?
Column IV. Is there a direct reward for school-year study?

City	I		II					III		IV	
	Yes	No	1	2	3	4	5	Yes	No	Yes	No
[illegible] Ala		X							X		X
[illegible] nn.	X						X		X		X
[illegible] id	X						X		X		
[illegible] Mich.	X			X					X		X
[illegible]	X						X		X		X
[illegible]	X						X	X		X	
[illegible], Utah	X				X			X		X	
[illegible]	X				X				X		X
[illegible]	X						X		X		X
Sacramento, Calif.	X						X		X		X
Aurora, Ill.		X						X		X	
Springfield, Mo.	X						X		X		X
Gary, Ind.	X						X			X	
Kokomo, Ind.	X						X	X		X	
[illegible] Ind.	X						X		X		
[illegible] Ind.	X						X	X		X	
Davenport, Ia	X						X		X		X
[illegible] Kans.	X						X	X		X	
[illegible] Mich.	X						X	X		X	
[illegible]	X						X	X		X	
[illegible]	X						X	X		X	
[illegible]	X						X	X		X	
[illegible]	X						X		X		X
Bloomington Ill.		X							X		X
Jacksonville Ill	X						X	X		X	
Mattoon, Ill	X						X		X		X
Frankfort Ind	X						X				
Michigan City, Ind.	X						X	X			X
Whiting, Ind		X							X		X
Arkansas City, Kans.		X						X			X
Pittsburg, Kans.	X						X		X		X
Chanute, Kans.	X						X	X		X	
Faribault, Minn.		X							X		X
Sedalia, Mo	X						X	X		X	
Hastings, Nebr.	X						X		X		X
Long Branch N. J.	X						X	X		X	
Rome N. Y		X						X		X	
Grand Forks, N D.	X						X	X		X	
Cambridge O		X						X		X	
Coshocton, O	X						X	X		X	
Salem, O.		X							X		X
Fremont, O.		X							X		X
Shawnee, Okla	X						X		X		X
Sioux Falls, S D.		X							X		X
Rutland, Vt.	X						X		X		X
Fairmont, W Va	X						X	X			X
Eau Claire, Wis		X							X		X
Total	35	12		1	2		32	21	24	19	25

ing a minimum of four years' college training of their entering teachers. (See Tables 3 and 4.)

Even though the single salary schedule advances the salary of the teacher who increases his or her training, there is a larger percentage of cities reporting direct financial reward for summer school work in the single salary group than in the group having regular salary schedules. Tables 1 and 2 show the data on this point and indicate that 65 per cent of the former group of cities offer direct reward for work taken during the summer and 49 per cent for work during the academic year, while 46 per cent of the second group offer reward for summer work and 43 per cent for courses taken during the year.

In those cities reported, then, there is no important difference in the number of cities granting leave for study in the entrance requirements or in the reward offered for courses taken during service. The single salary schedule does not seem to lower the entrance requirements as some would fear, nor does it relieve the cities using it from offering direct financial reward for college courses taken.

Immediately after the single salary schedule was adopted in Des Moines, a report was written showing the effect of the schedule upon the number of teachers enrolling for college work. It stated that the number of teachers attending college during the summer of 1920, the summer before the adoption, was 112 and that during the summer of 1921 the number taking courses for credit was 152, representing an increase in numbers of 36 per cent. During the academic year preceding the adoption, 112 teachers were in college courses and during the following year the number was increased to 362, an increase of 134 per cent.[2]

It would be interesting to know how this training in service has kept up in Des Moines, but such a record is not available. Tables 5 and 6, however, show the number and percentages of teachers who attended summer school during the past two summers and during the past two academic years for sixty-eight single salary cities and for sixty-three regular salary cities.

Of the 305 kindergarten teachers reported from the single salary cities, 10.8 per cent attended summer school in 1927 as compared with 11.0 per cent of the 292 reported from the regular

[2] "The Des Moines Salary Schedule." *School and Society*, Vol. XV, No. 373, pp. 203-204, February 18, 1922.

TABLE 3

NUMBER OF YEARS' TRAINING REQUIRED OF BEGINNING TEACHERS
SINGLE SALARY CITIES

CITY	ELEMENTARY					JUNIOR HIGH					SENIOR HIGH				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Denver, Colo.		X							X					X	
Bridgeport, Conn		X						X						X	
Des Moines, Ia.		X						X						X	
Louisville, Ky.		X					X							X	
Minneapolis, Minn.		X							X					X	
Portland, Ore.		X												X	
San Antonio, Tex.		X					X					X			
[illegible]		X						X						X	
[illegible]			X						X						X
[illegible]		X							X					X	
[illegible]		X							X					X	
[illegible]		X						X						X	
[illegible]nd.		X							X					X	
[illegible]ich.		X							X					X	
[illegible]		X							X					X	
[illegible]		X					X							X	
Springfield, Mo.		X						X						X	
Lincoln, Nebr		X					X							X	
Muskogee, Okla.		X						X						X	
Oklahoma City, Okla.				X					X					X	
Petersburg, Va		X							X					X	
Green Bay, Wis		X					X							X	
La Crosse, Wis		X							X					X	
Madison, Wis.		X							X					X	
Oshkosh, Wis		X					X							X	
Sheboygan, Wis		X												X	
San Bernardino, Calif.		X							X					X	
Chicago Heights, Ill.		X					X								
[illegible]		X												X	
[illegible]		X						X						X	
[illegible]		X												X	
[illegible]		X							X					X	
[illegible], Kans.		X							X					X	
[illegible]		X						X						X	
[illegible]		X							X					X	
[illegible]		X					X							X	
[illegible]		X					X							X	
[illegible]		X							X					X	
Rochester, Minn.		X							X					X	
[illegible]		X					X							X	
[illegible]		X							X					X	
Grand Island, Nebr.		X							X					X	
Asbury Park, N. J.		X												X	
Gloversville, N. Y.			X					X						X	
Cuyahoga Falls, O.							X							X	
Okmulgee, Okla.			X						X					X	
Aberdeen S. D.		X					X					X			
Morgantown, W. Va.		X						X						X	
Parkersburg, W. Va.		X					X							X	
Beloit, Wis.		X						X						X	
Appleton, Wis.		X					X							X	
Fond du Lac, Wis.		X						X						X	
Totals	0	46	3	1	0	0	14	12	20	0	0	2	0	47	1

salary cities. In 1928, the percentages were 13.4 per cent and 11.6 per cent, respectively. During the academic year 1927-28, 3.9 per cent of these teachers from the single salary group attended college and 6.2 per cent of the second group. During the next year, 1928-29, the percentages were 2.6 per cent and 5.1 per cent, respectively. For kindergarten teachers, then, a slightly

TABLE 4

NUMBER OF YEARS' TRAINING REQUIRED OF BEGINNING TEACHERS
REGULAR SALARY CITIES

CITY	ELEMENTARY					JUNIOR HIGH					SENIOR HIGH				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Birmingham, Ala.		X												X	
New Haven, Conn.		X					X							X	
Indianapolis, Ind.		X												X	
[illegible], Mich.		X							X					X	
[illegible]		X							X					X	
[illegible]		X											X		
Salt Lake City, Utah		X							X					X	
Seattle, Wash.		X							X					X	
Long Beach, Calif.		X							X					X	
Sacramento, Calif.				X						X					X
Aurora, Ill.		X					X							X	
Springfield, Ill.		X												X	
Gary, Ind.		X						X						X	
Kokomo, Ind.		X						X						X	
Muncie, Ind			X						X					X	
South Bend, Ind.		X							X					X	
Davenport, Ia.		X							X					X	
[illegible]		X							X					X	
[illegible], Mich.		X							X					X	
[illegible]		X							X					X	
[illegible]		X							X					X	
[illegible]		X							X					X	
[illegible]		X							X					X	
[illegible] Ill.		X												X	
[illegible] Ill.	X						X							X	
[illegible]		X							X					X	
[illegible]		X						X						X	
[illegible], Ind.		X							X					X	
[illegible]		X							X					X	
[illegible], Kans.		X							X					X	
Pittsburg, Kans.		X					X							X	
[illegible], Kans.		X							X					X	
[illegible]		X							X					X	
[illegible]		X												X	
[illegible]		X							X					X	
[illegible], N. J.		X							X					X	
Rome, N. Y.		X						X						X	
Grand Forks, N. D.		X					X							X	
Cambridge, O.		X					X								
Coshocton, O.	X					X					X				
Salem, O.	X						X							X	
Fremont, O.		X							X					X	
Shawnee, Okla.	X					X					X				
Sioux Falls, S. D.		X							X					X	
[illegible]		X					X							X	
[illegible], W. Va.		X												X	
Eau Claire, Wisc.		X												X	
Total	4	41	1	1	0	2	8	4	24	1	2	0	1	43	1

larger percentage from the cities, with salary schedules of the more traditional type, have been improving their training during the past two years.

For the elementary teachers, the percentages show a similar advantage for the regular salary cities. From the single salary cities there were reported 7,476 elementary teachers and from the regular salary cities 5,005. Of these 16.7 per cent and 17.5 per cent, respectively, attended school during the summer of

TABLE 5

Training in Service—Single Salary Cities

City	Kindergarten				Elementary				Junior High				High School			
	s1927	s1928	Ac. Yr. 1927–1928	Ac. Yr. 1928–1929	s1927	s1928	Ac. Yr 1927–1928	Ac. Yr 1928–1929	s1927	s1928	Ac Yr. 1927–1928	Ac. Yr 1928–1929	s1927	s1928	Ac Yr 1927–1928	Ac Yr. 1928–1929
Denver, Colo.																
Birmingham, Ala.					299	327	196	195					125	112	63	38
San Antonio, Tex.																
Bridgeport, Conn.	2	4	2		66	88	172						22	17	31	
Spokane, Wash.					114	139			11	12			16	16		
Harrisburg, Pa.				1				67				36				19
Terre Haute, Ind.	4	4			146	107	1	1	41	46	1	1	37	43	1	1
Rockford, Ill.																
Jackson, Mich.																
Cedar Rapids, Ia.																
Fresno, Calif.																
Decatur, Ill					38	56	44	55	21	24	41	48	14	13	19	18
Lakewood, O.	1	1	3		16	23	38	22	12	15	14	7	11	10	10	6
Moline, Ill	1	1			4	6							3	5	1	1
Muskogee, Okla.					43	36	2	1	10	5			21	17		
Colorado Springs, Colo.	4	4	3		39	13	69		24	22	29		11	11	23	
Richmond, Ind.	1	2			14	24			7	12		1	7	2		
Hutchinson, Kans.	1	2			18	36			7	16			8	6		
Burlington, Vt.					7	11			6	4	1		6	3	2	
Gloversville, N. Y.				1	4	8	11	8					7	6	3	6
Beloit, Wis.	1	3			29	34	2	4	21	26	4	5	14	16	2	4
Chicago Heights, Ill.								23								
Ann Arbor, Mich.	1				9	9		1	6	8		2	3	2		
Waukegan, Ill.		4			24	31										
Cleveland Heights, O.	2	1			17	11	13	2	9	9	4		4	3	1	
Salina, Kans.	3	1			24	28	17		13	9	2		13	7		
Aberdeen, S. D.	4	2			9	16			6	12		2	5	9	1	
Ardmore, Okla.					20	19	16	25	14	19	13	2	9	7	7	6
Ironton, O.					21	35		2	1	8			6	5	2	1
Rochester, Minn.					5	2			2	9			4	5		
Coffeyville, Kans.											1					
Atchison, Kans.						10				5				10		
Peru, Ind.					11	13							3	5		
Asbury Park, N. J.			1		11	14	17	4					6	6	4	1
Morgantown, W. Va.					59	27	5	6	14	11	4	3	18	13		

TABLE 5 (*Continued*)

City	Kindergarten				Elementary				Junior High				High School			
	s1928	s1928	Ac Yr 1927–1928	Ac. Yr 1927–1929	s1927	s1928	Ac. Yr. 1927–1928	Ac. Yr. 1928–1929	s1927	s1928	Ac Yr. 1927–1928	Ac. Yr. 1928–1929	s1927	s1928	Ac Yr 1927–1928	Ac. Yr. 1928–1929
Elwood, Ind.					15	12			4	9	1	1	3			
Mitchell, S D					5	6			3	4			1	3		
Stoneham, Mass.		1			4	5	9	12		1	4	6	1	5	10	5
Centralia, Wash.			1		10	12							10	8		
Pendleton, Ore.					3	9							7	6		
Ionia, Mich.		1			1	2			3	2			2	1		
University City, Mo.	2	1	2	3	21	18	28	27	4	8	10	10	3	10	7	9
Newton, Ia.	1	1			26	18							9	11		
Jamestown, N D.				2												
Livingston, Mont.					8	6										
Lewiston, Mont.					4	7			2	2		1	3	5		
Little Falls, Minn.						3							2	3		
Greenville, N. C.					9	10	12	4					3	4	2	3
East Palestine, O.									7	11				3		
Anacortes, Wash.												1	3	7		
Ft Thomas, Ky.					4	11			7	7			6	5	1	
Munsing, Mich.					2	9	3	3	2	3	1		3	2		1
Laurens, S. C.					4	11							2	6	1	
Hinsdale, Ill	1				2	5			2	2			2	5		
Roseburg, Ore.					11	6			5	5			2	3		
Scotia, N. Y		1			2	8			4	5			5	4		
Englewood, Colo.					1	24	3			9				1	2	
Oberlin, O.					3	3										
Darien, Conn.	1	2			4	2	3	5					3	5		3
Watertown, Conn.					4	4	2	2						1		
Gilbert, Minn.	1				2	1			5	3			7	4		
Park City, Utah					5	9	1		1	3			5	6	1	
National City, Calif.		2		1	21	17	19	9								
Bronxville, N. Y.		1			3		1	1	4	4			4	1		1
Clayton, Mo.	1	1			20	22							12	14		
Aurora, Minn.	1				3	4			1	1	3	2	6	3	2	
Dillon, Mont.		1				5				2						
Ferndale, Mich.					7	12	18	17	4	6	6	7		1		1
Total	33	40	12	8	1,251	1,384	702	496	283	359	139	135	477	476	196	124
Percentage of Teachers Reported	10 8	13.4	3.9	2.6	16.7	18.5	9.4	6 6	11 7	14.9	5.8	5.6	16.8	16.8	6.9	4.4

s = Summer. Ac. Yr. = Academic Year.

TABLE 6

Training in Service—Regular Salary Cities

City	Kindergarten				Elementary				Junior High				High School			
	s1927	s1928	Ac. Yr. 1927–1928	Ac. Yr. 1928–1929	s1927	s1928	Ac. Yr. 1927–1928	Ac. Yr. 1928–1929	s1927	s1928	Ac. Yr. 1927–1928	Ac. Yr. 1928–1929	s1927	s1928	Ac. Yr. 1927–1928	Ac. Yr. 1928–1929
St. Paul, Minn.	8	7	5		82	79	61						57	51	58	
Omaha, Nebr.	10	10	3	3	135	135	40	40					35	35	6	6
El Paso, Tex.																
Allentown, Pa.	5	7			48	39		2	19	20			5	17	1	1
Racine, Wis.						107				47				50		
Long Beach, Calif.					43	49	3	2					14	25	2	
Portsmouth, Va.					12	10	66		8	14	22		6	10	15	
Lancaster, Pa.	3	3	7	6	44	33	123	96	7	15	14	17	23	23	22	22
Hamtramck, Mich.					90	74	97	101	11	18	15	11	15	21	13	19
Charlotte, N. C.					31	27	1		15	14	2		18	18	1	
Lima, O.		1			14	21			14	13			6	3		
Battle Creek, Mich.					2	19	15	23	14	15	23	12	7	7	9	2
Rock Island, Ill.					6	13	1	1	4	5			6	13		
Beeeport, Ill.		1			19	19			3	3			6	9		
Michigan City, Ind.																
Pine Bluff, Ark.					32	16			22	10			20	5		
Pittsburg, Kans.		1				19		2						6		2
Fairmont, W. Va.	1				33				9				12	6		
Auburn, Me.					7	4	3	17	2	1		12	5	6		7
Jacksonville, Ill.					25	27			6	8			5	15		
Shawnee, Okla.					8	5	2	1	5	5	1	5	14	8	11	9
Grand Forks, N. D.			3		8	9	34		7	3	15		5	4	11	
Long Branch, N. J.					11	8										
Cambridge, O.					7	8			1	4	1		5	7		
Fremont, O.					4	2			7	4			3	5		
Faribault, Minn.					10	13							3	2		
Coshocton, O.																
Moundsville, W. Va.					11	14			2				4	4		
Salem, O.					3	2					3		1		4	
Whiting, Ind.		1			14	7							7	2		
Douglas, Ariz.					5	9			2	2			2	6		
Watertown, S. D.					6	6	5	1					9	8	1	
Bellefontaine, O.						3	1	1		5	18	18		3	12	12
Tarentum, Pa.						2				3				2		
Bremerton, Wash.																

TABLE 6 (*Continued*)

City	Kindergarten				Elementary				Junior High				High School			
	s1927	s1928	Ac. Yr 1927–1928	Ac. Yr. 1928–1929	s1927	s1928	Ac. Yr. 1927–1928	Ac. Yr. 1928–1929	s1927	s1928	Ac. Yr 1927–1928	Ac. Yr. 1928–1929	s1927	s1928	Ac. Yr. 1927–1928	Ac. Yr. 1928–1929
Bellefonte, Pa.		1			10	12	18	20	3	3	3	3	11	12	16	17
Beaver Dam, Wis.	1				2	2			1	2			2	4		
Fergus Falls, Minn.								2				1			2	1
Arkansas City, Kans.	1				6	8			5	7			5	5		
Bismarck, N. D.						1				3				4		
Wenatchee, Wash.					23	29	1		8	9	3	1	14	16		
Coldwater, Mich.						12	3			8	4	2		7	1	2
Sturgis, Mich.				1	1	4	4	14	4	3	5	5	1		1	2
Midland, Mich.	1				1	3					1		2	2		
Southington, Conn.				5	8	6	2	63					4	4	3	12
Jerome, Ariz.		1			5	16	9		1	3	1			7	1	
Wellsville, N. Y.					2	1			1	3			5	7	2	
Madisonville, Ky.					16	20	2	2	3	4	2	2	2	1		
Gladstone, Mich.						1				2				1		
Seymour, Conn.					7	6			2	1			6	7	4	5
Murray, Utah					2	4							2	3		
Canon City, Colo.														4		
Neosho, Mo.					12	13	3	3								
Suffield, Conn.					4	3										
Walsenburg, Colo.	2	1			30	30	1	2	3	3			5	5		3
North Bend, Ore.					10	8										
Eldora, Ia.					3	4		1					2	5		
Chaffee, Mo.					11	3	5		2	2			3	2	3	
Roodhouse, Ill.					2	1										
Clear Lake, Ia.					4	5			1	1			2	3	2	
Nappanee, Ind.					2	1			1	1			2	2		
Kelso, Wash.					3				1				3	3		
Total	32	34	18	15	874	975	497	391	197	267	133	90	364	475	201	122
Percentage of Teachers Reported	11.0	11.6	6.2	5.1	17.5	19.5	9.9	7.8	15.9	21.5	10.7	7.3	16.2	21.1	8.9	5.4

s = summer. Ac. Yr. = academic year.

1927; and 18.5 per cent and 19.5 per cent, in the summer of 1928; 9.4 per cent and 9.9 per cent, in the academic year 1927-28; and 6.6 per cent and 7.8 per cent in 1928-29.

From the junior high schools of the single salary cities, 2,417 teachers were reported and from the regular salary cities 1,241. The percentages of teachers attending summer school in 1927 were 11.7 per cent and 15.9 per cent and, for the summer of 1928, there were 14.9 per cent and 21.5 per cent. During the academic year of 1927-28, the percentages were 5.8 per cent and 10.7 per cent; in 1928-29, they were 5.6 per cent and 7.3 per cent.

The same condition exists in the senior high school. There were 2,838 teachers reported from the single salary cities and 2,250 from the regular salary cities. Of the former, 16.8 per cent attended summer school in 1927 and of the latter, 16.2 per cent. In the summer of 1928, the percentages were 16.8 per cent and 21.1 per cent. For the academic year 1927-28, there were 5.8 per cent of the first group in school and 10.7 per cent of the second; for 1928-29, 5.6 per cent and 7.3 per cent, respectively.

These percentages do not differ greatly but all of them favor the cities that have not adopted the method of the single salary schedule. The data do not show in either case that the differences in training of the several departments of the school are being reduced. In fact, it would seem that the best trained teachers, those of the high school, are doing more to increase their training while in service than are the less well trained. This is somewhat damaging to the contention of the advocates of the single salary schedule that its adoption will tend to bring up the training of the elementary teacher to that of the high school teacher.

For these same cities, Tables 7 and 8 show the numbers of teachers of the different departments having one, two, three, four, five, or more years of training beyond high school.

The kindergarten teachers of the single salary cities are better trained than are those of the regular salary group. In the case of the former, 72.4 per cent have two years of college, or less, while 91.8 per cent of the latter group have no more than two years. In the first group, 27.6 per cent are classified as three-year college people, while only 7.9 per cent of the second group are so classified.

Of the elementary teachers, 67.5 per cent from the single salary

group have as little as two years beyond high school, while 80.2 per cent of these under the regular salary are no better trained. Of the former, 32.6 per cent have three years or more as compared with 19.8 per cent of the latter. There are 19.8 per cent of the first group of teachers who have four years or more and only 8.4 per cent of the second group.

In the junior high schools, we find similar conditions as to training. Only a third, or 34.5 per cent, of the single salary teachers have less than four years' training beyond high school as compared with 52.4 per cent, or one-half of those from the regular salary cities. Two hundred twenty-eight of the single salary junior high school teachers are reported to have had five years of college training. This represents 9.4 per cent of the entire number. In the cities having the more traditional schedule, only 27, or 2.2 per cent, have had five or more years beyond high school.

In the senior high school conditions differ slightly. Here we find a greater range of training in the single salary cities, there being more poorly trained teachers and also more highly trained teachers than in the parallel group. In the first case, 15 per cent have less than four years' training as compared with 13 per cent of the second group and 20.5 per cent and 14.1 per cent, respectively, have more than five years' training.

These data indicate a slightly greater effect of the single salary schedule in those departments below high school than in this department. There seems to be less difference between the training of the elementary teacher and that of the high school teacher in the single salary cities than in the regular salary cities.

The single salary seems to have increased the training of the teachers working under it more rapidly than has been true in the regular salary cities. However, in the light of the finding that the teachers from the latter cities are attending school while in service more than those from the former, it would seem that the effect of the single salary schedule is now being reflected in all cities and that the difference in training existing at the present time may be wiped out.

It may well be that the single salary schedule has had more effect than is evidenced by the data just reported. Since the law of supply and demand operates in the field of teaching as well as in other fields, it is reasonable to believe that, if the

TABLE 7

NUMBER OF YEARS' TRAINING BEYOND HIGH SCHOOL—SINGLE SALARY CITIES

Name of City	Kindergarten						Elementary					
	0	1	2	3	4	5	0	1	2	3	4	5
Denver, Colo.								119	268	96	297	17
Birmingham, Ala.							37	73	358	159	276	23
San Antonio, Tex.							216		156		129	
Bridgeport, Conn.			29	4				12	498	79	16	1
Spokane, Wash.								51	240	78	62	8
Harrisburg, Pa.			12						197	16	10	
Terre Haute, Ind.			5	9	3				15	77	104	3
Rockford, Ill.			16	2	1		28	36	137	21	25	2
Jackson, Mich.			9	4			2	1	116	33	19	2
Cedar Rapids, Ia.	2		10	5	3		9	1	102	20	19	1
Fresno, Calif.												
Decatur, Ill.							2	13	138	14	2	
Lakewood, O.			14	1	1	1	9	78	118	26	16	
Moline, Ill.		1	9	1				30	67	3	4	
Muskogee, Okla.								7	69	19	16	
Colorado Springs, Col.		1	4	1	5		8	10	41	18	38	
Richmond, Ind.			6	1				3	79	8	3	
Hutchinson, Kans.			9				11	11	51	12	7	
Burlington, Vt.			3	1			5	19	27	5	1	
Gloversville, N. Y.			2	7				4	42	35	2	
Beloit, Wis.			10	1			2	12	69	9	4	
Chicago Heights, Ill.								4	76	5	5	
Ann Arbor, Mich.			3	3	1				43	7	27	4
Waukegan, Ill.	1		6				1	1	100	12	14	2
Cleveland Heights, O.			1	5	5	4		4	71	29	36	7
Salina, Kans.	1		2	1	3		3	4	45	11	10	1
Aberdeen, S. D.			5	1					31	6	6	
Ardmore, Okla.									34	7	8	
Ironton, O.			2					38	39	1	1	1
Rochester, Minn.			6				11		43		1	
Coffeyville, Kans.									43	11	7	
Atchison, Kans.			4					9	28	7	5	
Peru, Ind.			1					6	27	10	3	
Asbury Park, N. J.			6	1					53	9	3	
Morgantown, W. Va.								20	83	2	21	
Elwood, Ind.												
Mitchell, S. D.									30			
Stoneham, Mass.		1						7	18	1		
Centralia, Wash.			1						41			
Pendleton, Ore.									26	1		
Ionia, Mich.			3						19	16	3	
University City, Mo.			2	3	1				5	20	34	6
Newton, Ia.			2		1				43	4	4	
Jamestown, N. D.								1	28	2		
Livingston, Mont.									33		3	
Lewistown, Mont.			1					2	19		2	
Little Falls, Minn.									18			
Greenville, N. C.									22	4	20	2
East Palestine, O.								5	19			
Anacortes, Wash.												
Ft. Thomas, Ky.									8	6	12	1
Manising, Mich.			1					2	20	1		
Laurens, S. C.									5		14	
Hinsdale, Ill.			2						24			
Roseburg, Ore.							2	2	14	1	3	
Scotia, N. Y.			3				2	4	11	9	1	
Englewood, Col.									28	7	2	
Oberlin, O.									9	2	5	1
Darien, Conn.			5					3	15			
Watertown, Conn.			2				2	1	34		4	
Gilbert, Minn.			3						41			
Park City, Utah								5	17	3	2	
National City, Calif.		1	2						9	7	18	6
Bronxville, N. Y.			1			1			7	3	9	8
Clayton, Mo.			1		2				11	6	16	1
Aurora, Minn.			2						16	1		
Dillon, Mont.											11	1
Ferndale, Mich.			8		1				74	16	13	1
Total	4	4	213	51	27	6	350	538	4,156	955	1,374	101
Percentage	1.3	1.3	69.8	16.7	8.9	2.0	4.7	7.2	55.6	12.8	18.4	1.4

TABLE 7 (*Continued*)

Junior High							High School						
0	1	2	3	4	5	6+	0	1	2	3	4	5	6+
	19	24	20	272	46			7	8	7	165	79	
							13	17	43	24	172	72	19
66		48		145			24		8		129		
		18	15	76	68								
	6	4	8	12	6			37		1	105	64	
		34	36	36	4			1	9	13	63	22	1
		6	11	77	6		4		6	8	105	15	
1	19	27	16	50			1		9		72	5	
1	1	12	11	34	7				6	2	34	21	
7	1	23	16	67	5		2		5	4	52	16	
1	6	25	22	43				2	3	1	52		
2	3	8	17	58	12	2			1	1	41	27	11
										2	35	5	
	1	2	1	15				1	6	4	35	12	
1	2	16	3	40		2	1	3	3	2	50		14
			9	34	5				3	23	12		
		1	4	37	4		1	1			23		
1	3	1	3	12				1	1		19	2	
									1		28	7	
		12	18	18						5	26	1	
		2	4	36	8				1	24	18		
		6	12	29	20	6				2	21	15	17
		11		20	4						13	14	
		2	10	19					1		22	4	
		1	2	20	2						19	3	
		10	1	2					3	1	18	6	
2		3		19			2		1		25	4	
		11	7	10						3	15	2	
			1	15							16	2	
									1	2	20	2	
									3	2	23	11	
	1	10	1	15	2				4	3	28	15	1
		3	7	4						2	19	2	2
		3	1	14					1		15	2	
	1	7	2					2	1	2	9		
											31	10	
									2		15	1	
			7	8	1				1	2	8	2	
				18	11	1					10	8	8
							3	1		1	36	5	4
1		9	3								17		
			3	7							28	3	
		5									16	2	
											17	4	
	1	2		3							9	1	1
		1	1	2					1		14	1	
			2	2	5					1	4	5	
		4		3							9		
											15		
		4		2									
2	1	5	1	6							15	1	
	1	4	2	10	1				2	1	8	1	
		5	1	11							13		
		1		7							11	1	
											13	2	1
									1		7		
		4	4	8					3	1	15	2	
			3	1	1						3	3	3
		1	2	8	3						3	8	1
									2	17	4		
		1	3	3	5					2	9	6	
				2	2								
		13	7	16							19	5	
85	65	388	296	1,344	228	11	51	73	140	163	1,829	499	83
3.5	2.7	16.1	12.2	55.6	9.4	.05	1.8	2.6	4.9	5.7	64.4	17.6	2.9

TABLE 8

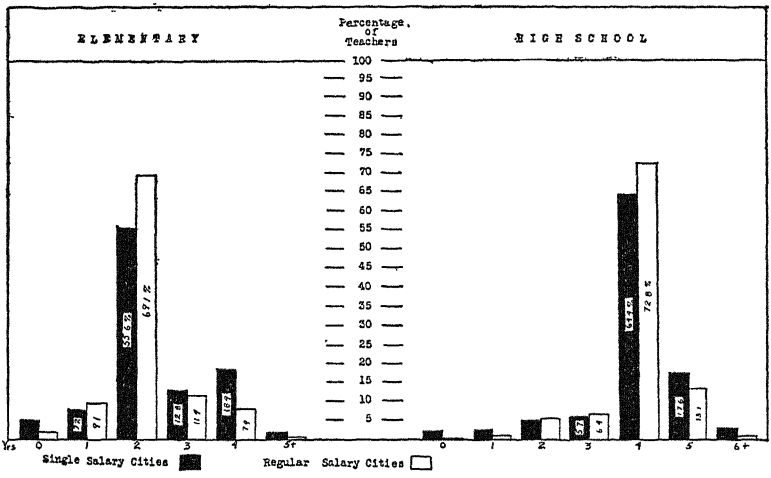
NUMBER OF YEARS' TRAINING BEYOND HIGH SCHOOL—REGULAR SALARY CITIES

Name of City	Kindergarten						Elementary					
	0	1	2	3	4	5	0	1	2	3	4	5
St. Paul, Minn.			74		2				657		6	
Omaha, Nebr.			76						406	200	12	
El Paso, Tex.		5	13	1			1	203	170	28	53	
Allentown, Pa.												
Racine, Wis.			25				9	17	148	1	4	
Long Beach, Calif.												
Portsmouth, Va.							7	53	108	9	10	
Lancaster, Pa.									165		4	
Hamtramck, Mich.			9		1				130	25	15	
Charlotte, N. C.							1	25	86	36	124	15
Lima, O.								18	128	16	7	
Battle Creek, Mich.			11		2		6	2	130	7	20	1
Rock Island, Ill.			5	3			20	10	45	4	6	
Eau Claire, Wis.												
Freeport, Ill.							10	10	32	2		2
Michigan City, Ind.		1	5					4	43	15	11	
Pine Bluff, Ark.												
Pittsburg, Kans.			3	1	1				26	16	16	
Fairmont, W. Va.			3						62	9	9	
Auburn, Me.			3	3			9	1	61		1	
Jacksonville, Ill.							12	10	18	4		
Shawnee, Okla.									34	20	8	
Grand Forks, N. D.								1	30	11	9	1
Long Branch, N. J.			6	1					53		1	
Cambridge, O.							8	17	42	3	10	
Fremont, O.			4					3	24	5	1	
Faribault, Minn.								5	22			
Coshocton, O.								18	28			
Moundsville, W. Va.								1	57	3	8	
Salem, O.								12	19			
Whiting, Ind.			2	1				2	16	5		
Watertown, S. D.									42			
Douglas, Ariz.			2						54	20	7	
Bellefontaine, O.							1	17	13	7	12	2
Tarentum, Pa.							5	1	19	1	2	
Bremerton, Wash.									41			
Bellevue, Pa.			1						12	13	2	
Beaver Dam, Wis.			2					5	18	2	2	
Fergus Falls, Minn.									25	2		
Arkansas City, Kans.			2					6	40	3		
Bismarck, N. D.									26	5		
Wenatchee, Wash.				4	1				18	19	4	
Coldwater, Mich.			1						12	4	3	
Sturgis, Mich.			2						24			
Midland, Mich.			3					2	21	1	2	
Southington, Conn.			5				5		54		1	1
Jerome, Ariz.			1						26	9	5	
Wellsville, N. Y.			1						2	9	7	2
Madisonville, Ky.									18	12	4	
Gladstone, Mich.			2					2	15			
Seymour, Conn.									31			
Murray, Utah								2	17	4	1	
Canon City, Colo.									37		3	
Neosho, Mo.									13	6	1	
Suffield, Conn.							2		25			
Walsenburg, Colo.		1			1				30	5	1	
North Bend, Ore.									24			
Eldora, Ia.				1					12	1	1	
Chaffee, Mo.									12	12		
Roodhouse, Ill.							4	7	1			
Clear Lake, Ia.				1						11	1	
Nappanee, Ind.									8	2	1	
Kelso, Wash.								2	25	4	2	
Total		7	261	16	8		100	456	3,456	571	397	24
Percentage		2.4	89.4	5.5	2.7		2.0	9.1	69.1	11.4	7.9	.5

TABLE 8 (*Continued*)

Junior High							High School						
0	1	2	3	4	5	6+	0	1	2	3	4	5	6+
			179	136							275	63	
											285	50	1
								7	26	24	88		
7	1	27	3	37	5				3	4	45	6	
									14	4	40	4	
		39	4	18	2				19		42	18	
	1	8	13	27		1			6	3	37	9	2
		2	11	45	5			1	3	17	46	8	2
		6	7	25	1	1		1	3	6	44	15	2
3		24	9	22	1				6	3	20	4	
11	1	14	8	10	1			1	2	2	25	7	
1	2	11	2	4			1	1	3	2	21	7	4
		5	5	13	2			1	2	2	18	8	
		3	8	24	2					2	17	9	1
									1	2	25	5	
3	2	5	1	5				2	2	1	14		
2	3	5	3	1				2	3	2	22	4	
		5	3	9						8	30	3	
		4	6	8	1				1	2	21	7	2
		15		13					5		18		
											29	2	
	3	2	2	9				1	5	1	18	1	
	5	2	1	11	1	1		1	1		11	2	
										3	19	2	1
											14	2	
	3	4		3						21	2	1	
		1	1	12	1				2	1	9	5	2
		7		16					1		18		
											20	1	
									3	1	12	2	
	1	7	2	8							8	3	2
		2	2	10						1	24		
		1	5	1							25	8	1
			4	6							11		
		12		3					2	3	16		
	2	2		23							20	4	
		3	3	2							16	3	
		6	14	4							40	2	1
		3	4	6					1	17			
		5		4					3		14	1	
		5		9						2	10		
									1		12		
		1	2	3	1					1	12		
	1	1	3		1			2		3	8	3	
		4	1	3							10	3	
		5	1	3							7		
		8							2		9	1	
								2	1	4	12		
		13		16					2		15		
			4	1							15	1	
		2	1	3								13	1
									1		12	1	
											10	3	
		1	1							1	5	2	
		2	1						2	1	4		
		1	1	2						1	11	1	
			1	2							12		
	1	6	2								16	1	
27	26	279	318	564	24	3	1	22	126	145	1,639	295	22
2.2	2.1	22.5	25.6	45.4	2.0	.2	.05	1.0	5.6	6.4	72.8	13.1	1.0

single salary increases the number of trained teachers in the schools operating under it, those cities using other forms of schedules would offer more salary and secure better trained teachers than they might otherwise do. This might be considered an indirect effect of the single salary schedule upon cities in which this type of schedule has not been adopted. The real effect of the schedule cannot be measured except as the two groups of cities are studied over a period of years and as it is



GRAPH I

NUMBER OF YEARS' COLLEGE TRAINING REPORTED FOR TEACHERS IN TWO GROUPS OF CITIES

possible to secure data before the adoption of the single salary and also after its adoption.

These data have shown only the amounts of training possessed by the teachers in the cities studied and the number attending school while in service. They have not indicated the kind of training secured. A teacher may have had several years of college training to her credit and still have little preparation for teaching in her particular position. A teacher may spend each summer in gaining additional college credits and still not be improving herself as far as her teaching is concerned. To secure information as to the kind of courses the teachers in single salary cities were taking inquiry blanks were sent to several selected cities for distribution to the entire teaching staff. In selecting

these cities, size of city and its geographical location were taken into consideration. Some superintendents failed to respond because of lack of time and others felt that their local situation was not such as to make the replies of value to the study. Reports were received from four cities, one in Washington, one in Iowa, one in North Carolina, and one in Virginia. The usable replies numbered two hundred. One hundred fifty were from elementary teachers and fifty from high school teachers.

The questionnaires asked for the positions held during the past five years, the total amount of college credit already earned, and the courses taken during the past five years or during the time in the system if less than five years.

Of the 150 elementary teachers reporting, sixty-nine had studied for credit while working under the single salary schedule and during the past five years. Of the fifty teachers in high school, twenty-five named courses they had taken during the same period. This indicates that 43 per cent of the elementary teachers and 50 per cent of the high school teachers had increased their training while in service.

Some interesting examples of the types of courses taken with respect to the position held were found. A first grade teacher, for example, indicated that the most recent work taken was six semester hours of play-writing. This may be cultural and give much personal pleasure but the effect upon her teaching of the first grade would surely not be great. Another first grade teacher reported only three hours of English and three hours of Spanish. These two courses are doubtless to be used toward a degree at some future time. A teacher of fifth grade reports courses in Old Testament Poetry, Teachings of Jesus, History of the Hebrews, Short Stories, and History of Education. A fourth grade teacher in the same city stated that she had taken courses in Curriculum of the Elementary School, American Novels, Poetry of the Bible, The Teachings of Jesus, Old Testament Literature, American Short Stories, and Shakespearean Tragedies.

These courses may have some value to the individual but should not result in salary increases unless it is the desire of the community to pay a teacher for simply increasing the number of credits she has. A salary increase for such credits cannot be justified from the standpoint of benefit to the school through the teaching given.

Two teachers, one a first grade teacher and one a teacher of third grade, offer credit in courses in High School Administration. On what basis should a school increase the salary of a teacher of first or third grade for taking courses in High School Administration? If these teachers are preparing to be high school teachers, they are either not interested in their present work or they feel that there would be some advantage to them in a transfer of activities. In either case, an increase in salary defeats the purpose of the single salary schedule. If the courses are taken merely for credit or because of a passing fancy, the salary increase can be no better justified.

One of these teachers supplemented her course in High School Administration with courses in Biology and Zoölogy, Experimental Biology, Sociology, Development of the Short Story, and English. Most third grade curricula do not include courses in Biology and Zoölogy.

There are two explanations of the condition existing here. One is that the salary increase under the schedule is given for additional credit with little regard for the kind of training. The other is that most of these courses were taken in extension work. In either case the teachers are scarcely to blame. They wish to secure more credits toward a degree or toward a salary increase and they take the courses that are most readily available to them. If the only courses offered in extension are courses in religious education or in high school administration, these are the courses that will be taken by the teachers, whether they be teaching Kindergarten, High School History, or the Poetry of the Bible. The fault must be laid in large measure to the local educational authorities. Extension courses are brought to a city because there is a local demand for them. This demand is influenced by two things—the best courses and the cheapest courses. When these two factors are balanced, the selection is often as indicated above. Fewer and better courses would be economy to the school system.

Summary

1. There is no significant difference in the training requirements for beginning teachers in the single salary cities as compared with those of the regular salary cities.

2. The inducement to further training in service through direct

financial reward is as great in the single salary cities as in the others.

3. There is a slightly greater tendency on the part of the teachers of the regular salary cities to increase their training while in service than on the part of those under the single salary schedule.

4. The single salary teachers are better trained than are those of the regular salary cities, although the difference between the training of the elementary teacher and that of the high school teacher is not being materially reduced.

5. Teachers who are given salary increases for credit of any kind will take the kind that is most readily available.

CHAPTER III

EXPERIENCE AND MERIT AS FACTORS IN THE SINGLE SALARY SCHEDULE

Aside from the amount of training possessed by a teacher, the one common element of single salary schedules is the number of years of experience in teaching. Schedules vary as widely in respect to the credit given for experience as they do in the amount of increase given for each added unit of training.

The simplest single salary schedule takes the teacher with the minimum amount of training and the minimum number of years of experience and with these two elements places her at a definite position on the schedule. Her salary is increased a fixed amount each year that she remains in the system until she reaches a fixed maximum. In case she increases her training during that time, she is allowed to receive increases for a few more years to reach the new maximum. If she has had experience in other than the local schools, this experience is evaluated and credit is given accordingly.

Following are some of the salary regulations covering the matter of experience and its relation to the salary paid:

1. Experience during five preceding years outside . . . will be evaluated by the superintendent and credit will be given if it is considered as valuable as . . . experience.

2. The maximum allowance for experience outside . . . for all positions will be six years.

3. For teachers new to . . . not to exceed nine years of experience may be counted in arriving at the salary to be paid.

4. Experience elsewhere may be counted as experience in . . . on the basis of two years elsewhere for one in . . . ; but no more than ten years' experience elsewhere shall be credited in fixing the salary of any newly elected teacher.

5. Experience in other schools may be recognized by the Board of Education for salary considerations up to and including the median salary of the class in which the new teacher is classified.

6. In determining salary no credit will be given for experience in rural and non-accredited schools unless such experience shall exceed five years,

in which case, one year's credit will be allowed. Full credit will be given for all experience in credited schools.

7. The Board may rate the experience gained elsewhere of candidates who enter its employ for the first time after the adoption of this schedule and may allow to such experience on these schedules such credit as may seem to be desirable. Each such case to be determined separately and on its own merits.

8. For the purpose of determining the salary rate of teachers who have already come or who may come hereafter into the . . . schools with teaching experience outside . . . , the Superintendent of Schools is authorized to evaluate this outside experience and to give such credit for it as may seem equitable.

9. Experience in teaching outside . . . will be granted an allowance of $50 per year up to a maximum of $500.

Here are schedules allowing full credit for outside experience varying from five to nine years and others allowing partial credit with still others leaving the amount of credit dependent upon the evaluation of such experience by some local authority, the superintendent or the board. In one case the credit is given in terms of dollars per year up to a fixed maximum.

There is considerable difference of opinion as to the rate at which advance should be made toward the maximum in the given class after a teacher is placed upon the schedule. There is difference both as to the amount of each salary increase and as to the number of years before the maximum is reached.

In some schedules all increments are equal and only the number is increased for increased amounts of training. For example, in one schedule for the normal school graduate having two years' training beyond high school, there are eleven annual increments of $100 each. If the teacher has had three years beyond high school, there are two more annual increments of $100. If she has four years without a degree, an additional two increments of the same size are added. With a Bachelor's degree the minimum salary is raised and there are provided twelve annual increases of $100 each. One year more adds three more increments and the Master's degree carries two extra increments of the same amount. This means that there are only two minima provided but the number of annual increments increases as the training increases. The possessor of a Master's degree has the same minimum as has one holding a Bachelor's degree but, instead of twelve years of salary increases received, there are seventeen annual increments of $100 each.

In a second example, there are twelve equal increments given to all regardless of the training classification. Of course, in this case there is a different minimum provided for each class as well as a different maximum.

Some contend that not only should there be an increase in the amount of the salary for increased amounts of training, but that as the training is increased the annual increases should be greater in amount. As an example of this, one city gives eight and nine increments of $100 each to its two- and three-year college groups, respectively; to the four-year group, ten increases of $125; and to the group holding the Master's degree, ten of $125 and one of $150.

There seems to be no semblance of uniformity in respect to the amount of credit given to experience. An experiment in Iowa indicated that eight or nine years was the optimum experience for teaching reading.[1] The number may differ for different subjects and different grades and, until it is possible to state the optimum amount of experience for the teacher in each department of the school, it will not be possible to arrive scientifically at the number of annual salary increments to be provided for in the salary schedule. We seem to be little nearer such a solution than we are to the optimum amounts of training for given positions.

A third factor that is having an increasingly important effect upon salaries and salary schedules is merit. Rating teachers and using this rating in the determination of salaries require some courage on the part of the superintendent. Many do not yet wish to assume this responsibility. On the other hand, however, the number of school systems in which some method of rating is employed is increasing even in those cities having the single salary schedule.

The Biennial Survey of Education for 1920-22, previously referred to, in the paragraph dealing with the tendency toward a salary schedule providing equal pay continues with

Merit is also being considered, but it is doubtful whether many of the schedules providing for the recognition of merit have always been successfully administered, from the fact that merit in a teacher is so difficult to measure.

[1] Gray, Wm. S. *Summary of Investigations Relating to Reading.* University of Chicago Press, 1925.

E. E. Lewis in his address before the Department of Superintendence in 1926 takes up the matter from the standpoint of the better teachers.

> There should be enough flexibility in the salary schedule to provide extra pay for teachers of extra ability. In other words, merit should be recognized, other factors being equal. Teachers should realize that the top is open. Increases should not be given automatically to all teachers who are retained in the system. Instead they should serve to secure constant improvement during the time of service.[2]

Superintendent Webster of Minneapolis in writing of the use of the single salary schedule in Minneapolis seemed to feel that merit should be considered to some extent when he said that beyond a certain point the payment should be for service of merit rather than parchment.[3]

In a questionnaire sent out by the Research Division of the National Education Association in March of 1928, two questions were asked regarding merit. The first was: "Have you a plan under which all teachers are rated as to quality of service rendered?" and the second was: "Does a teacher's rating directly and automatically determine the amount of her salary increase for the following year?"

Of the cities classified as "single salary cities," forty-eight of those with more than 10,000 population replied to the first question. Of these, thirty-three stated that they did rate their teachers and fifteen said that they did not rate them. Of those who rated the teachers, however, only eight allowed the rating to affect directly the salary of the teacher rated, that is, while 69 per cent of the cities reporting went through the formality of rating the teachers in their schools, only one-sixth of them rated the teachers and then used the rating in determining the salary to be paid the following year.

In the group of cities having regular salary schedules with which the above were compared, 57 per cent rated the teachers but only 7 per cent allowed the rating to affect the salary paid.

One of the cities in which rating is required but in which the rating affects only the reelection and not the salary has in its schedule the following statement:

[2] Lewis, E. E. "The Single Salary Schedule." *Department of Superintendence, Official Report*, February, 1926, p. 215

[3] Webster, Wm. F. "The Single Salary Schedule." *Department of Superintendence, Official Report*, pp. 226-228, February, 1926.

Teachers are to be rated from A to F as under the present plan of rating. All teachers retained in the system will receive the annual increase provided by the schedule.

Another has a rule differing but slightly which states:

The Superintendent shall annually rate each teacher, as far as possible, by means of a teacher rating scheme. The scheme to be used is that of the State Department until one better suited to ————————'s needs may be adopted. No teacher's salary shall be increased whose services are not rated satisfactory.

In another group of cities, the rating directly affects the salaries. In some, the increase is granted only upon a satisfactory rating; in others, the annual increase is adjusted to the rating; and, in still others, the whole matter is left to the discretion of the superintendent or of a committee of which he is a member.

Schedules include such items as the following:

1. The yearly increase may be granted for successful work upon the rating of the Superintendent with the assistance of the Principals and Supervisors.

2. Annual increases shall be granted by the Board of Education only when merited by satisfactory or superior work, and on the recommendation by the Superintendent of Schools.

3. Annual salary increments shall be given subject to the approval of the Board of Education only to teachers recommended as "Superior," "Very Good," or "Good" by the Supervising Principal regardless of the "college unit class" to which they shall have progressed.

4. Teachers will be rated annually as A, B, or C by the Superintendent, with the assistance of the Principals and Supervisors. Teachers rated A or B will receive the annual increment, teachers rated C will receive one-half of an annual increment and, if rated C for two successive years, will receive no increase. Teachers who have reached the maximum salary and are rated C will receive $5 less per month than their regular maximum.

5. Teachers rated as "Poor" shall not be reëmployed; rated as "Fair" shall be reëmployed for the next year at no increase in salary; rated as "Good," the teacher is automatically advanced in the schedule. Teachers of exceptional ability may be advanced beyond the maximum salary upon recommendation of the Superintendent of Schools.

6. The annual increment in any case may be withheld or increased, if, in the judgment of the Superintendent it seems advisable, provided a written statement of the reason is on file both with the superintendent and with the teacher concerned.

In the above examples, the rating is a sort of rider to the salary schedule and has not been made a part of it as have training

and experience. In one case, however, it seems that rating of merit weighs in the schedule as do the other factors and really becomes a measure of the worth of the teacher to the school and an indication as to the salary that teacher should receive. The superintendent writes as follows:

> Our salary schedule is a single salary schedule and also a *minimum* salary schedule. It simply guarantees the minimum amount which a teacher with a certain number of years of experience and training will receive. By the way, this minimum is the actual salary of those teachers who rate average. In the case of those rated above average, strong, or superior, this salary schedule becomes simply a starting-point as we award higher salaries and larger annual increases to all teachers who rate above average.
>
> Our teachers seem to like the idea as it gets away from the trade union idea of paying everybody the same, irrespective of the kind of work they do. The Board has been fair in the extra increases given and this has encouraged both a larger amount of initiative and effort and also summer school attendance in an endeavor to improve one's individual capacity.

Here we have a single salary schedule with an additional measure used. Most of the cities, even those using rating, place the teacher according to the number of years' training and the number of years of teaching experience. Then if there is rating, it is used only as a means of withholding the annual increase or of giving special salary adjustment. In the last mentioned schedule, however, a teacher is placed on the schedule according to the three measures. Her training places her at a given point; her experience is evaluated and places her a definite amount higher on the scale; and, finally, her merit rating is used to determine an additional advance in salary position. Not only do the three measures work together to place the teacher on the schedule but they also work to determine the amount of each annual increase.

Summary

1. Credit for outside experience varies from five to nine years.
2. There is little uniformity as to the number of annual increments for experience, the number varying from five to thirteen; and in one case, seventeen.
3. There is need for study to show the optimum amount of experience for a given position.

4. The amount of each increase may be uniform for all classes or vary as the training.

5. Merit is being used as a measure along with training and experience in some cities. It is used more often, however, without any effect upon the salary paid.

CHAPTER IV

THE FINANCIAL QUESTION

A matter that must be one of interest and importance to those who would adopt a salary schedule is that of cost. From its very nature, the single salary schedule would seem to be expensive. With the more or less automatic increase each year of all salaries below the maxima and the possibility offered for all teachers to reach the higher maxima, the amount expended for teachers' salaries would increase, other factors being equal, until all had reached the maximum salaries.

In the *Research Bulletin of the National Education Association* for May, 1927, reference is made to a brief study of comparative salaries in two groups of cities, one group classified as single salary cities and the other as regular salary cities. There was found to be no significant difference between the salaries paid in the two classes of cities.[1] This would lead one to question the assumption that the single salary schedule is more expensive than other types.

If salaries increase more rapidly under this type of schedule than under others, the effect should be discernible in the percentages of current expenditures going to teachers' salaries over a period of years. Data were available on this point from the year 1919-20 to 1925-26, inclusive.[2] This period extends from the year before such cities as Denver, Minneapolis, and Des Moines adopted the schedule until six years following.

Tables 9 and 10 show the amounts expended for day-school teachers' salaries and the amounts for total current expenditures for the seven-year period for two groups of cities. Table 9 contains data for thirty-four single salary cities and Table 10

[1] "The Scheduling of Teachers' Salaries," *Research Bulletin of the National Education Association*, Vol. V, No. 2, pp. 160-61, May 1928, Washington, D. C.

[2] Statistics of City School Systems, 1919-20, 1921-22, 1923-24, 1925-26. *Bureau of Education Bulletins*, 1922, No. 17; No. 34; 1925, No. 41; 1927, No. 32. U. S. Government Printing Office, Washington, D. C.

TABLE 9

Teachers' Salaries and Current Expense—Single Salary Cities

Cities	Current Expense 1919-1920	Salaries 1919-1920	Per Cent	Current Expense 1921-1922	Salaries 1921-1922	Per Cent	Current Expense 1923-1924	Salaries 1923-1924	Per Cent	Current Expense 1925-1926	Salaries 1925-1926	Per Cent
Denver, Colo.	$2,644,068	$1,742,712	65.9%	$2,[illegible]	$1,[illegible],700	69.3%	$4,031,020	$2,632,336	65.3%	$4,444,710	$3,031,690	68.2%
Bridgeport, Conn.	1,219,899	845,642	69.3	1,[illegible]	1,072,257	66.3	1,771,263	1,167,232	65.9	1,943,674	1,278,226	65.8
Des Moines, Ia.	1,880,987	1,034,878	55.0	2,[illegible]	1,[illegible],041	63.1	2,558,511	1,612,440	63.0	2,773,624	1,762,998	63.6
Louisville, Ky.	1,342,555	864,358	64.4	1,[illegible]	1,[illegible],408	67.7	2,128,762	1,440,505	67.7	2,425,785	1,614,731	66.6
Minneapolis, Minn.	4,617,153	2,610,707	56.5	4,[illegible]	5,[illegible],361	64.9	6,278,129	3,762,782	59.9	6,611,377	4,026,336	60.9
Portland, Ore.	2,907,144	2,033,602	68.4	3,[illegible]	2,[illegible],870	64.8	3,496,253	2,353,781	67.0	4,307,683	2,771,700	64.3
San Antonio, Tex.	915,728	654,974	71.6	1,[illegible]	735,166	74.5	1,650,227	1,154,338	70.0	1,922,619	1,426,227	74.2
Spokane, Wash.	1,206,507	756,380	62.7	1,[illegible]	1,076,454	68.1	1,687,354	1,105,100	65.5	1,800,993	1,185,676	65.8
Group Average			64.2%			67.4%			65.5%			66.0%
Little Rock, Ark.	422,460	287,029	67.5				[illegible],372	434,912	75.1	675,706	[illegible],6	62.6
Berkeley, Calif.	[illegible],705	[illegible],975	70.8	1,[illegible]	[illegible],534	69.9	1,[illegible],800	817,422	67.6	1,[illegible]	[illegible],74	67.9
San Diego, Calif.	[illegible],846	464,[illegible]	55.7	1,[illegible]	[illegible],[illegible]0	66.0	1,[illegible],677	1,030,277	64.1	2,[illegible],[illegible]	1,[illegible],4	68.7
Colorado Springs, Colo.	378,750	230,[illegible]	60.9	[illegible],[illegible]	[illegible],[illegible]9	67.3	[illegible],748	463,432	66.9	[illegible],[illegible]	[illegible],[illegible]6	67.0
Decatur, Ill.	[illegible],781	216,[illegible]	64.5	[illegible]	[illegible],104	66.1	[illegible],129	401,184	64.5	[illegible],[illegible]	[illegible],9	63.3
Joliet, Ill.	[illegible],[illegible]2	226,[illegible]	57.5	[illegible]	[illegible],[illegible]1	56.1	[illegible],580	505,851	54.9	[illegible],[illegible]	[illegible],[illegible]9	62.2
Rockford, Ill.	670,161	439,[illegible]	64.0	[illegible]	[illegible],641	61.5	1,[illegible],912	647,456	64.5	1,[illegible],[illegible]	[illegible],[illegible]7	61.8
Hammond, Ind.	[illegible],[illegible]29	176,737	54.9	[illegible]	[illegible],[illegible]2	54.1	[illegible],700	395,138	52.7	[illegible],[illegible]	[illegible],[illegible]2	52.5
Terre Haute, Ind.	[illegible],210	[illegible],[illegible]0	66.0	[illegible]	[illegible],[illegible]4	62.0	1,080,610	601,175	55.6	1,[illegible]	[illegible],[illegible]0	59.0
Cedar Rapids, Ia.	[illegible],[illegible]4	[illegible],[illegible]4	62.5	[illegible]	[illegible],[illegible]0	64.2	747,992	484,488	64.8	[illegible]	[illegible]5	63.7
Sioux City, Ia.	[illegible],136	[illegible]	60.5	1,[illegible]	[illegible],[illegible]0	64.3	1,256,120	797,340	63.5	1,[illegible]	859,631	63.6
Flint, Mich.	[illegible],[illegible]2	[illegible]	64.3	1,[illegible]	[illegible]7	61.2	1,171,981	709,707		1,[illegible]	987,200	65.4
Jackson, Mich.	[illegible],[illegible]4	[illegible],[illegible]0	65.1	[illegible]	[illegible]3	67.9	609,013	368,044	60.4	[illegible]	431,974	69.8
Kalamazoo, Mich.	[illegible],[illegible]9	[illegible]	61.6	[illegible]	470,928	63.7	[illegible]	[illegible]	[illegible]4	[illegible]	551,879	57.5
Lansing, Mich.	[illegible],[illegible]1	[illegible]	64.2	[illegible]	483,116	70.0	[illegible]	[illegible]0	[illegible]7	1,107,308	686,720	62.0
Duluth, Minn.	1,[illegible],16	[illegible],[illegible]0	57.1	1,[illegible]	1,004,471	65.0	1,[illegible]	1,[illegible]6	[illegible]4	1,814,014	1,084,253	[illegible]
St. Joseph, Mo.	686,620	[illegible],[illegible]0	66.3	[illegible]	[illegible]	[illegible]	[illegible]2	[illegible]	[illegible]7	1,029,144	656,816	[illegible]
Springfield, Mo.	292,721	[illegible],[illegible]9	62.3	[illegible]	282,776	68.5	[illegible]4	[illegible]2	[illegible]6	512,459	[illegible],743	[illegible]
Lincoln, Nebr.		[illegible]		[illegible]	597,246	64.4	1,[illegible]5	[illegible]41	[illegible]0	1,115,304	675,767	[illegible]
Elmira, N. Y.	345,797	233,083	67.4	[illegible]	353,396	73.1	[illegible]0	[illegible]0	[illegible]4.1	611,178	409,359	[illegible]
Wilmington, N. C.	117,085	80,934	69.1	[illegible]	194,157	73.3	[illegible]	[illegible]0	[illegible]7	370,964	[illegible],486	[illegible]
Winston-Salem, N. C.	189,352	119,380	63.0	[illegible]	235,000	73.2	[illegible]2	[illegible]00	[illegible]1.0	694,798	445,722	[illegible]
Lakewood, O.	671,747	476,035	70.9	[illegible]	601,135	65.9	985,021	[illegible],[illegible]3	[illegible]4.3	1,180,267	735,373	[illegible]
Muskogee, Okla.	275,275	177,150	64.3	[illegible]	249,477	64.1	462,631	322,122	[illegible].6	433,750	297,507	[illegible]
Oklahoma City, Okla.	832,834	524,587	63.0	1,[illegible]	999,342	70.0	1,792,326	1,175,772	65.6	1,764,530	1,176,090	[illegible]
Harrisburg, Pa.	701,978	423,529	60.3	[illegible]	604,329	63.0	1,111,946	681,838	61.3	1,282,771	779,685	[illegible]
Group Average			63.3%			65.6%			64.0%			63.7%
Total Average			63.6%			66.1%			64.4%			64.3%

TABLE 10

Teachers' Salaries and Current Expense—Regular Salary Cities

Cities	Current Expense 1919-1920	Salaries 1919-1920	Per Cent	Current Expense 1921-1922	Salaries 1921-1922	Per Cent	Current Expense 1923-1924	Salaries 1923-1924	Per Cent	Current Expense 1925-1926	Salaries 1925-1926	Per Cent
Birmingham, Ala.	$914,558	$641,114	70.1%	$1,376,034	$951,073	69.1%	$1,691,834	$1,248,714	73.8%	$2,071,[illegible]	$1,[illegible]	73.1%
New Haven, Conn.	1,311,730	834,588	63.6	2,038,016	1,265,810	62.1	2,157,117	1,421,917	65.9	2,593,[illegible]	1,[illegible]	66.1
Indianapolis, Ind.	2,973,547	1,847,866	62.1	4,372,270	2,738,669	62.6	4,707,685	3,073,270	65.3	5,083,[illegible]	3,[illegible]	63.7
Grand Rapids, Mich.	1,378,338	826,854	60.0	1,904,150	1,160,987	61.0	2,346,361	1,446,894	61.7	2,772,[illegible]	1,[illegible]	59.3
St. Paul, Minn.	2,316,269	1,455,779	62.9	2,398,212	1,545,222	64.4	2,917,497	1,788,677	61.3	3,169,[illegible]	2,[illegible]	63.4
Dallas, Tex.	770,250	510,400	66.3				2,094,258	1,357,957	64.8	2,195,[illegible]	1,[illegible]	73.1
Salt Lake City, Utah	1,543,807	927,717	60.1	1,910,005	1,274,272	66.7	1,895,545	1,260,656	66.5	2,054,[illegible]	1,[illegible]	69.0
Seattle, Wash.	3,893,971	2,272,668	58.4	4,332,456	2,676,179	61.8	4,244,886	2,698,221	63.6	4,652,[illegible]	3,[illegible]	66.3
Group Average			62.9%			64.0%			64.1%			65.4%
Long Beach, Calif.	592,209	391,311	66.1	1,136,743	746,963	65.8	1,832,414	1,[illegible],971	67.7	2,596,755	1,706,487	65.7
Pasadena, Calif.	772,588	471,716	61.1	1,256,347	827,288	65.8	1,774,254	1,[illegible],426	58.4	2,089,366	1,347,684	64.5
Sacramento, Calif.	814,729	551,996	67.8				1,345,801	[illegible],460	71.4	1,572,667	1,103,201	70.1
Augusta, Ga.	357,381	217,792	60.9	511,307	351,359	68.7	570,549	[illegible],009	69.2	553,298	378,740	68.5
Cicero, Ill.	269,211	163,044	60.6	357,635	222,533	62.2	437,959	[illegible],831	59.7	472,341	262,948	55.7
Oak Park, Ill.	257,921	154,579	59.9	378,340	240,742	63.6	478,729	[illegible],26	59.4	532,270	327,367	61.5
Peoria, Ill.	637,147	391,165	61.4	912,243	564,742	61.9	934,260	[illegible],24	62.4	1,011,249	549,534	64.2
Rock Island, Ill.	256,631	158,301	61.7	374,868	222,079	59.2	379,223	[illegible],074	64.3	410,910	259,681	63.2
Springfield, Ill.	603,049	400,526	66.4	735,753	494,614	67.2	822,320	[illegible],746	69.3	918,218	619,911	67.5
Kokomo, Ind.	184,549	123,947	67.2	277,991	170,385	61.3	316,246	[illegible],462	58.6	363,023	205,556	56.6
Muncie, Ind.	342,315	161,983	47.3	492,481	300,940	61.1	557,913	345,589	61.9	594,292	380,975	64.1
South Bend, Ind.	754,467	425,869	56.4	1,109,588	644,722	58.1	1,247,598	773,058	62.0	1,441,517	812,579	56.4
Council Bluffs, Ia.	376,394	204,316	54.3	505,283	276,778	54.8	547,567	330,941	60.4	587,812	371,497	63.2
Davenport, Ia.	598,912	358,317	59.8	795,347	481,613	60.6	867,589	511,311	58.9	867,354	521,321	60.1
West Waterloo, Ia.							226,958	145,650	64.2	268,194	152,340	56.8
Topeka, Kans.	455,232	284,709	62.5	672,672	404,880	60.2	806,066	454,173	56.3	879,218	484,511	55.2
Battle Creek, Mich.	446,715	270,094	60.5	548,820	351,379	64.0	607,784	355,127	58.4	659,545	374,551	56.8
Bay City, Mich.	357,260	220,000	62.1	538,782			638,668	394,937	61.8	690,776	417,940	60.5
Binghamton, N. Y.	509,586	324,023	63.6	802,343			991,770	676,097	68.2	1,139,304	776,660	68.2
Charlotte, N. C.	218,308	137,143	62.8	337,930	237,698	70.3	469,626	318,524	67.8	659,756	467,673	70.9
Lima, O.	293,211	190,058	64.8	421,718	239,996	56.9	482,928	273,290	56.6	632,249	399,403	63.2
Allentown, Pa.	615,201	383,591	62.4	762,977	450,028	59.0	907,138	580,520	64.0	1,061,566	650,000	61.2
Hazleton, Pa.	269,692	165,976	61.6	375,939	236,956	63.0	461,511	281,166	60.9	532,721	329,211	61.8
Lancaster, Pa.	289,984	177,800	61.3				511,082	302,591	59.2	672,901	404,934	60.2
Austin, Tex.	233,981	146,750	62.7	318,503	217,347	68.2	364,731	263,685	72.3	401,860	292,908	72.9
El Paso, Tex.	452,746	315,200	69.6	804,892	579,983	72.1	940,392	683,682	72.7	1,049,248	739,478	70.5
Group Average			61.8%			63.0%			63.3%			63.1%
Total Average			62.1%			63.3%			63.8%			63.9%

TABLE 11

Elementary Salaries and Total Salaries—Single Salary Cities

Cities	Total Salaries 1919-1920	Elementary Salaries 1919-1920	Per Cent	Total Salaries 1921-1922	Elementary Salaries 1921-1922	Per Cent	Total Salaries 1923-1924	Elementary Salaries 1923-1924	Per Cent	Total Salaries 1925-1926	Elementary Salaries 1925-1926	Per Cent
Denver, Colo.	$1,742,712	$1,[illegible]	62.8%	$1,959,700	$1,2[illegible],172	63.0%	[illegible]	$1,569,235	59.6%	$3,031,690	$1,552,621	51.2%
Bridgeport, Conn.	845,642	[illegible]	74.5	1,072,257	770,412	72.6	[illegible]	844,712	72.4	1,278,226	886,269	69.3
Des Moines, Ia.	1,034,878	[illegible]	60.6	1,360,041	840,977	62.4	[illegible]	982,533	60.9	1,762,998	957,268	54.3
Louisville, Ky.	864,358	[illegible]	68.9	1,295,408	927,425	71.6	[illegible]	1,008,753	70.0	1,614,731	1,108,874	68.7
Minneapolis, Minn.	2,610,707	1,[illegible]	67.3	3,220,351	2,001,400	62.1	[illegible]	2,118,311	56.3	4,026,336	2,146,130	53.3
Portland, Ore.	2,033,602	1,[illegible]	70.0	2,119,870	1,[illegible],345	73.9	[illegible]	1,705,523	72.5	2,771,700	2,016,503	72.8
San Antonio, Tex.	654,974	[illegible]	70.2	795,166	643,220	68.9	[illegible]	581,303	50.4	1,426,227	737,107	51.7
Spokane, Wash.	756,380	[illegible]	67.0	1,078,454	726,115	68.3	[illegible]	739,343	66.9	1,185,676	776,576	65.5
Group Average			67.7%			67.9%			63.6%			60.9%
Little Rock, Ark.	285,029						[illegible]	213,697	53.3	423,056	209,245	49.5
Berkeley, Calif.	570,675	[illegible]	63.5	782,334	338,858	43.3	[illegible]	343,360	42.0	931,674	385,374	41.4
San Diego, Calif.	464,482	[illegible]	57.2	820,580	515,090	62.8	[illegible]	509,650	49.5	1,412,294	638,878	45.2
Colorado Springs, Colo.	230,399	[illegible]	66.5	387,539	245,740	63.4	[illegible]	293,953	63.4	498,056	230,835	46.3
Decatur, Ill.	216,543	[illegible]	69.2	312,104	163,532	52.4	[illegible]	192,583	48.0	501,669	246,067	49.0
Joliet, Ill.	226,245	226,245		285,391	272,341	95.4	[illegible]	305,851		298,369	228,469	75.6
Rockford, Ill.	409,064	293,397	71.7	568,941	405,397	71.3	[illegible]	441,564	68.2	636,427	296,192	42.5
Hammond, Ind.	175,767	110,[illegible]	63.1	167,922			[illegible]	273,117	69.1	464,702	319,517	68.3
Terre Haute, Ind.	418,670	297,005	68.7	599,784	318,404	53.1	[illegible]	315,914	52.5	706,740	[illegible]62	43.6
Cedar Rapids, Ia.	353,743	241,171	68.2	426,420	206,724	48.5	[illegible]	185,660	38.3	538,305	[illegible]43	[illegible]
Sioux City, Ia.	461,496	[illegible]14	51.3	661,370	310,333	46.9	[illegible]	427,540	53.6	859,631	[illegible]49	49.7
Flint, Mich.	401,059	309,[illegible]	77.1	709,707	562,150	79.2				987,200	[illegible],700	66.3
Jackson, Mich.	253,600	129,[illegible]	50.9	362,683	163,176	45.0	[illegible]	168,899	45.9	431,974	[illegible]27	50.6
Kalamazoo, Mich.	296,041	182,[illegible]	61.7	470,928	216,123	45.9	[illegible]	225,735	45.7	551,879	[illegible],32	44.5
Lansing, Mich.	290,848	199,[illegible]	68.7	483,116	229,247	47.5	[illegible]	250,180	48.6	686,720	[illegible]41	44.9
Duluth, Minn.	640,410	347,[illegible]	54.2	1,004,471	529,370	52.7	[illegible]	573,[illegible]	56.3	1,084,253	[illegible]18	55.1
St. Joseph, Mo.	455,480	337,[illegible]	74.1				[illegible]	334,210	74.1	656,816	[illegible],98	71.3
Springfield, Mo.	182,259	128,109	70.3	[illegible],776	[illegible]	66.5	[illegible]	173,[illegible]	55.3	344,743	[illegible],10	52.6
Lincoln, Nebr.				[illegible],146	[illegible]	67.0	[illegible]	331,911	53.2	675,767	417,894	61.8
Elmira, N. Y.	233,083	151,545	65.0	[illegible]96	[illegible]	61.8	[illegible]	[illegible]	65.3	409,359	246,524	60.2
Wilmington, N. C.	80,934	67,[illegible]	83.3	[illegible],157	[illegible]	80.7	[illegible]	100,350		256,486	200,486	78.2
Winston-Salem, N. C.	119,380	98,[illegible]	83.5	[illegible],000	[illegible]	80.9	[illegible]	[illegible],000	75.0	445,722	321,879	72.2
Lakewood, O.	476,035	255,[illegible]	53.6	[illegible],735	[illegible]	59.7	[illegible]	247,410	46.9	735,373	336,820	45.8
Muskogee, Okla.	177,150	96,[illegible]	54.8	[illegible],77	[illegible]	46.0	[illegible]	[illegible]	51.9	297,507	127,206	42.8
Oklahoma City, Okla.	524,587	368,[illegible]	69.3	[illegible],342	[illegible]	55.8	[illegible],772	[illegible]	54.1	1,176,090	589,796	50.1
Harrisburg, Pa.	423,529	[illegible]	46.7	[illegible],529	[illegible]	49.9	[illegible]	[illegible]	45.2	779,685	345,657	44.3
Group Average			64.9%			58.2%			54.6%			53.0%
Total Average			65.6%			60.8%			56.9%			54.9%

TABLE 12

Elementary Salaries and Total Salaries—Regular Salary Cities

Cities	Total Salaries 1919-1920	Elementary Salaries 1919-1920	Per Cent	Total Salaries 1921-1922	Elementary Salaries 1921-1922	Per Cent	Total Salaries 1923-1924	Elementary Salaries 1923-1924	Per Cent	Total Salaries 1925-1926	Elementary Salaries 1925-1926	Per Cent
Birmingham, Ala.	$641,114	$506,761	79.0%	$951,073	$717,147	75.4%	$1,[illegible],714	$860,623	68.9%	$1,514,587	$1,020,133	67.4%
New Haven, Conn.	834,588	601,838	72.1	1,265,810	878,763	69.4	[illegible],017	962,176	67.7	1,713,053	1,1[illegible],789	66.8
Indianapolis, Ind.	1,847,866	1,293,140	70.0	2,738,669	1,858,960	67.9	[illegible],970	2,005,977	65.3	3,236,703	2,10[illegible],975	65.0
Grand Rapids, Mich.	826,854	504,898	61.1	1,160,987	715,351	61.6	1,[illegible],694	808,085	55.8	1,643,668	77[illegible],052	47.0
St. Paul, Minn.	1,455,779	978,955	67.2	1,545,222	1,011,966	65.5	[illegible],977	1,166,454	65.2	2,010,332	1,[illegible],530	61.7
Dallas, Tex.	510,400						1,[illegible],857	920,705	67.8	1,603,718	1,[illegible],018	67.0
Salt Lake City, Utah	927,717	739,414	79.7	1,274,272	721,600	56.6	[illegible],956	773,981	61.4	1,417,666	[illegible],536	59.8
Seattle, Wash.	2,272,668	1,608,299	70.8	2,676,179	1,795,108	67.1	[illegible],321	1,781,529	66.0	3,082,887	2,0[illegible],074	65.9
Group Average			71.4%			66.2%			64.8%			62.6%
Long Beach, Calif.	391,311	232,780	59.5	746,963	370,265	49.6	1,241,371	[illegible]	43.5	1,706,487	728,321	42.7
Pasadena, Calif.	471,716	2[illegible],320	55.7	827,288	402,134	48.6	1,035,626	[illegible]	48.1	1,347,684	605,883	45.0
Sacramento, Calif.	551,996	[illegible],886	67.9				960,960	[illegible]	62.1	1,103,201	627,164	57.8
Augusta, Ga.	217,792	[illegible],342	63.5	[illegible]	226,442	64.4	395,009	[illegible]	62.8	378,740	230,600	60.9
Cicero, Ill.	163,044	[illegible],044		[illegible]	222,533		261,631	[illegible]		262,948	262,948	
Oak Park, Ill.	154,579	[illegible],579		[illegible]	225,332	93.6	284,426	[illegible]	95.6	327,367	306,967	93.8
Peoria, Ill.	391,165	256,969	68.2	[illegible],742	370,555	65.6	583,124	[illegible]	62.7	649,534	411,[illegible]	63.3
Rock Island, Ill.	158,301	117,180	74.0	[illegible],079	157,916	71.1	243,974	[illegible]	65.0	259,681	115,[illegible]	44.6
Springfield, Ill.	[illegible]	[illegible],666	77.3	[illegible]	361,225	73.0	569,746	[illegible]	67.8	619,911	409,[illegible]	66.1
Kokomo, Ind.	[illegible]	24,406	76.2	[illegible]	115,212	67.6	185,462	[illegible]	67.4	205,556	138,[illegible]	67.2
Muncie, Ind.	[illegible]	[illegible],205	70.0	[illegible]	169,554	56.3	345,589	[illegible]	60.4	380,975	227,[illegible]	59.6
South Bend, Ind.	[illegible]	300,316	70.5	641,722	484,781	75.2	773,058	[illegible]	59.7	812,579	446,736	55.0
Council Bluffs, Ia.	[illegible]	135,946	67.0	275,773	152,985	55.3	530,941	[illegible]	60.2	371,497	218,[illegible]	58.7
Davenport, Ia.	[illegible]	277,528	77.5	481,613	222,780	46.3	511,311	221,565	43.3	[illegible]	224,078	43.0
West Waterloo, Ia.							145,650	86,050	59.1	[illegible]	90,095	59.1
Topeka, Kans.	284,709	197,405	69.3	404,880	267,759	66.1	454,173	290,249	65.9	[illegible]	310,504	64.1
Battle Creek, Mich.	270,094	191,013	70.7	361,379	197,727	56.3	355,127	[illegible],220	55.5	[illegible]	205,270	54.8
Bay City, Mich.	222,000	167,500	75.4				394,937	210,700	53.4	[illegible]	215,920	51.7
Binghamton, N. Y.	324,023	260,127	80.3				676,097	[illegible],61	74.4	[illegible]	586,654	75.5
Charlotte, N. C.	137,143	114,328	83.4	237,698	170,186	71.6	318,524	220,493	69.2	[illegible]	331,276	70.8
Lima, O.	190,058	131,464	69.2	239,996	141,546	58.9	273,290	[illegible],121	37.8	[illegible]	206,599	51.7
Allentown, Pa.	383,591	303,940	79.2	450,028	254,134	56.5	580,520	448,193	77.3	[illegible]	486,000	74.8
Hazleton, Pa.	165,976	137,031	82.6	236,956	134,334	56.7	281,166	141,761	50.4	[illegible]	177,743	54.0
Lancaster, Pa.	177,800	125,377	70.5				302,591	[illegible],179	67.5	[illegible]	215,959	57.3
Austin, Tex.	146,750	77,084	52.5	217,347	100,647	46.3	263,683	138,[illegible]	52.7	[illegible]	144,924	49.5
El Paso, Tex.	315,200	249,992	79.3	579,983	447,952	77.2	683,682	496,076	72.6	739,478	500,897	67.7
Group Average			71.2%			61.2%			60.0%			58.0%
Total Average			71.3%			62.5%			61.2%			59.1%

contains data for an equal number of cities having regular salary schedules according to the 1926-27 classification.

The single salary cities show a slightly larger percentage going to teachers' salaries than do the cities of the other classification, but the difference was as great in 1919-20, before any had adopted single salary schedules, as it was in 1925-26. There was a larger difference in 1921-22, immediately after several cities made their adoptions, but this was reduced in the next biennial report. The data for Denver, Des Moines, Minneapolis, Colorado Springs, and Sioux City show a rather substantial increase going to salaries in 1921-22. It is possible that in these cities the adoption of the single salary schedule effected a part of this increase. Other cities, however, in which the adopton did not take place until later, show similar increases and it must be concluded that there were other factors working to increase the amounts expended for salaries of teachers.

Although these data do not indicate a substantially greater amount going to salaries where the single salary is in operation, it cannot be concluded therefrom that the schedule does not operate to increase salaries. It would be possible through a leveling down of the high school salaries toward the elementary level to control the amount going to salaries and still allow the schedule to operate. If this takes place or if the high school salaries remain at about the same level as before, the operation of the schedule should be seen in the percentage of total salaries going to the elementary teachers.

Tables 11 and 12 show the percentages of total salaries going to the elementary teachers during the period from 1919 to 1926 for the same two groups of cities as studied above. The percentages for the regular salary cities are consistently higher than for the cities having the single salary schedule. For both groups the percentages have decreased for each biennial report. This fact may be explained by one or more of several changes: an increased high school enrollment, increased adoption of the junior high school organization, and a wider acceptance of the kindergarten as a part of the school proper. There is, however, no evidence to show that these changes operated to a greater extent in those cities having the single salary schedule than in others. Still no evidence of the effect of the single salary schedule has been shown.

VITA

Lyle Leon Morris was born at Oakland, Iowa, on March 28, 1897. He attended the public schools of the same community and graduated from the public high school in 1915. He received the Bachelor of Science degree from Drake University in 1920 in mathematics and science. After four years' teaching he entered Teachers College in 1925 and received the Master of Arts degree in 1926 in public school administration. He taught during 1926-27 and returned to Teachers College to complete the work for the Doctor of Philosophy degree.

His teaching experience consists of one year in an Iowa rural school, one year as head of the mathematics department in the senior high school at Grand Rapids, Minnesota, one year as dean of boys and vice-principal in Central High School of Superior, Wisconsin, one year as high school principal, and two years as superintendent of Iowa consolidated schools, and one year as business manager and co-director of a New York private school.

TABLE 13

MEAN SALARIES IN SINGLE SALARY CITIES

Cities	Elementary Salaries 1919-1920	Number of Teachers	Mean Salary 1919-1920	Elementary Salaries 1925-1926	Number of Teachers	Mean Salary 1925-1926	Per Cent of Increase
Denver, Colo.	$1,094,354	923	$1,185.65	$1,552,621	846	$1,835.25	54.8%
Bridgeport, Conn.	629,584	487	1,292.78	886,269	545	1,626.18	25.8
Des Moines, Ia.	627,132	537	1,167.84	957,268	516	1,855.17	58.9
Louisville, Ky.	595,676	674	883.79	1,108,874	818	1,355.59	53.4
Minneapolis, Minn.	1,756,655	1,357	1,294.51	2,146,130	1,240	1,730.75	33.7
Portland, Ore.	1,423,882	978	1,455.91	2,016,503	1,115	1,808.52	24.2
San Antonio, Tex.	459,977	484	950.37	737,107	465	1,585.18	66.8
Spokane, Wash.	506,639	457	1,108.61	776,576	479	1,621.24	45.2
Group Average			$1,167.43			$1,677.24	43.7%
Berkeley, Calif.	362,333	292	1,240.87	385,374	199	1,936.55	56.1
San Diego, Calif.	265,618	300	885.39	638,878	348	1,835.86	107.4
Colorado Springs, Colo.	153,197	128	1,196.85	230,835	120	1,923.63	60.7
Decatur, Ill.	149,947	175	856.84	246,067	168	1,464.68	70.9
Joliet, Ill.	226,245	202	1,120.02	228,469	156	1,464.54	30.8
Rockford, Ill.	293,393	306	958.80	296,192	203	1,459.07	52.2
Hammond, Ind.	110,852	126	879.78	319,517	203	1,573.98	78.9
Terre Haute, Ind.	287,605	274	1,049.65	343,162	220	1,559.83	48.6
Cedar Rapids, Ia.	241,171	210	1,148.43	209,643	153	1,370.22	19.3
Sioux City, Ia.	236,714	248	954.49	427,649	291	1,469.58	53.9
Flint, Mich.	309,334	335	923.39	655,000	510	1,284.31	39.1
Jackson, Mich.	128,998	115	1,121.72	218,627	143	1,528.86	36.3
Kalamazoo, Mich.	182,776	193	947.03	245,852	158	1,554.63	64.2
Lansing, Mich.	199,721	207	964.84	308,241	199	1,548.95	60.5
Duluth, Minn.	347,043	312	1,112.32	597,418	367	1,627.84	45.3
St. Joseph, Mo.	337,465	295	1,143.95	468,498	303	1,546.20	35.2
Springfield, Mo.	128,109	153	837.31	181,310	151	1,200.73	43.4
Lincoln, Nebr.		269		417,894	232	1,801.27	
Elmira, N. Y.	151,545	151	1,003.61	246,524	160	1,540.78	53.5
Wilmington, N. C.	67,404	122	552.49	200,486	160	1,253.04	126.8
Winston-Salem, N. C.	99,680	136	732.94	312,879	303	1,062.31	44.9
Lakewood, O.	255,025	154	1,656.01	336,820	181	1,860.88	12.4
Muskogee, Okla.	96,995	130	746.12	127,206	132	963.68	29.2
Oklahoma City, Okla.	363,770	380	957.29	589,796	366	1,611.46	68.3
Harrisburg, Pa.	197,996	231	857.13	345,657	207	1,669.84	94.8
Petersburg, Va.	74,247	105	707.11	121,471	107	1,135.24	60.5
Tacoma, Wash.	448,355	359	1,248.90	554,776	301	1,843.12	47.6
Huntington, W. Va.	160,885	188	1,855.77	471,956	287	1,644.45	63.9
Green Bay, Wis.	90,139	99	910.49	112,864	84	1,343.62	47.6
La Cross, Wis.	65,898	79	834.15	128,331	91	1,410.23	69.1
Group Average			$979.44			$1,506.49	53.8
Fort Smith, Ark.	96,704	122	792.65	151,190	128	1,181.17	49.0
Elgin, Ill.	85,566	104	822.75	178,246	106	1,681.56	104.4
Elwood, Ind.	36,387	46	791.02	47,009	38	1,237.08	56.4
Peru, Ind.	46,361	45	1,030.24	67,866	52	1,305.12	26.7
Richmond, Ind.	91,998	83	1,108.39	111,826	86	1,300.30	17.3
Atchinson, Kans.	36,765	42	875.36	46,120	38	1,214.68	38.6
Coffeyville, Kans.	52,744	68	775.65	80,279	70	1,146.84	47.9
Hutchinson, Kans.	77,446	89	870.18	123,763	80	1,547.04	77.8
Lawrence, Kans.	46,292	65	712.18	52,983	39	1,358.54	90.8
Ann Arbor, Mich.	93,055	71	1,310.63	129,937	71	1,830.10	39.6
St. Cloud, Minn.	35,008	37	946.16	41,362	31	1,334.26	41.0
Virginia, Minn.	113,794	75	1,517.25	140,140	91	1,540.00	1.5
Hannibal, Mo.	45,894	81	566.59	63,675	66	964.77	70.3
Grand Island, Nebr.	69,506	61	1,139.41	63,816	55	1,160.29	1.8
Asbury Park, N. J.	59,108	60	985.13	109,194	68	1,605.79	63.0
Glen Cove, N. Y.	66,725	83	803.89	150,980	98	1,540.61	91.6
Durham, N. C.	55,882	99	564.46	162,006	131	1,236.69	119.1
Ironton, O.	57,785	66	875.53	78,658	64	1,229.03	40.4
Aberdeen, S. D.	47,846	50	956.92	62,282	47	1,325.13	38.5
Ogden, Utah	191,245	196	975.74	205,333	155	1,324.73	35.8
Burlington, Vt.	57,186	88	649.84	62,708	51	1,229.57	89.2
Parkersburg, W. Va.	117,521	125	940.17	164,675	97	1,697.68	80.6
Beloit, Wis.	79,476	90	883.07	108,121	80	1,351.51	53.0
Fond du Lac, Wis.	70,468	71	992.51	103,776	76	1,365.47	37.6
Madison, Wis.	153,224	132	1,160.79	277,054	161	1,720.83	48.2
Sheboygan, Wis.	100,892	102	989.15	164,882	116	1,421.40	43.7
Group Average			$924.45			$1,378.82	49.2%
Total Average			$980.52			$1,475.48	50.5
						P.E. 22.70	

TABLE 13

(*Continued*)

High School Salaries 1919-1920	Number of Teachers	Mean Salary 1919-1920	High School Salaries 1925-1926	Number of Teachers	Mean Salary 1925-1926	Per Cent of Increase
$506,246	227	$2,230.16	$668,725	261	$2,562.16	14.9%
168,986	112	1,508.64	350,267	166	2,110.04	39.9
309,088	272	1,136.35	387,150	174	2,225.00	95.8
203,150	160	1,269.69	441,761	239	1,848.37	45.6
692,818	413	1,677.53	1,220,397	596	2,047.65	22.1
469,701	272	1,726.84	742,878	356	2,086.65	20.8
192,400	148	1,300.00	295,200	153	1,916.34	47.4
242,346	167	1,451.17	409,100	188	2,176.06	50.0
		$1,537.55			$2,121.53	38.0%
183,902	97	1,895.90	213,674	102	2,094.84	10.5
166,368	98	1,697.63	274,577	135	2,033.90	19.8
70,864	42	1,687.24	109,415	49	2,232.96	32.3
66,596	58	1,148.21	115,304	65	1,773.91	54.5
109,684	79	1,388.41	184,338	95	1,940.40	39.8
45,663	32	1,364.47	113,630	57	1,993.51	46.1
89,110	71	1,255.07	213,845	113	1,892.43	50.8
42,404	37	1,146.05	134,348	81	1,658.62	44.7
175,069	141	1,241.62	157,153	72	2,182.40	75.8
50,725	56	905.80	104,200	75	1,389.33	53.4
104,530	81	1,290.49	84,539	43	1,966.02	52.3
75,712	54	1,402.07	112,598	56	2,010.68	43.4
72,954	64	1,139.91	137,980	81	1,703.46	49.4
225,890	178	1,169.04	213,708	105	2,035.31	74.1
115,865	82	1,412.99	181,158	106	1,708.85	20.9
54,150	60	902.50	80,069	55	1,455.80	61.3
	75		116,265	66	1,761.59	
61,200	48	1,275.00	149,813	85	1,804.98	41.6
15,530	16	845.63	56,000	48	1,166.67	38.0
19,700	25	788.00	125,845	92	1,346.12	70.8
188,535	82	2,299.21	212,087	74	2,866.04	24.7
80,155	45	1,781.22	135,968	77	1,765.82	-.9
131,652	104	1,265.88	275,941	143	1,929.66	52.4
210,467	156	1,349.15	209,162	87	2,404.16	78.2
26,070	32	814.69	69,874	47	1,486.68	82.5
173,320	111	1,561.44	272,692	128	2,130.41	36.4
97,468	126	773.56	111,540	54	2,065.56	167.0
55,407	47	1,178.87	105,431	57	1,849.67	56.9
48,294	31	1,557.87	82,635	46	1,796.41	15.3
		$1,304.93			$1,881.59	44.2
39,100	34	1,150.00	80,951	60	1,349.18	17.3
56,834	40	1,420.85	82,885	50	1,657.70	16.6
15,217	16	951.06	38,532	24	1,605.50	68.8
18,531	15	1,235.40	42,921	25	1,866.13	51.1
48,890	39	1,253.59	66,050	38	1,738.16	38.7
25,362	22	1,152.82	27,298	17	1,605.76	39.3
23,175	19	1,219.74	36,454	22	1,657.00	35.8
36,321	26	1,396.96	59,890	29	2,065.17	47.8
29,220	29	1,007.59	53,830	29	1,856.21	84.2
49,742	38	1,309.00	104,191	45	2,315.36	76.9
22,383	26	860.88	57,124	30	1,904.13	121.2
91,560	57	1,606.32	75,380	33	2,284.24	42.2
19,855	23	863.26	29,956	24	1,239.83	43.6
22,298	17	1,311.65	38,000	23	1,652.17	26.0
50,615	24	1,275.63	62,500	30	2,083.33	63.3
33,815	26	1,300.58	64,510	33	1,954.85	50.3
35,973	26	1,306.65	60,543	30	2,018.10	54.4
21,868	18	1,214.89	41,200	25	1,648.00	35.7
30,965	22	1,408.32	46,855	25	1,873.40	33.0
48,425	38	1,274.34	63,481	38	1,670.55	31.1
30,793	27	1,140.48	46,671	30	1,555.70	36.4
48,488	45	1,077.51	93,349	45	2,074.42	92.5
32,279	28	1,152.82	49,130	29	1,694.14	47.0
38,955	37	1,052.78	73,900	43	1,718.60	63.2
100,003	69	1,449.32	210,366	102	2,062.41	42.3
40,893	29	1,410.10	88,200	45	1,960.00	39.0
		$1,223.17			$1,811.92	48.1%
		$1,300.66			$1,883.34	44.8%
					P.E. 30.02	

TABLE 14

MEAN SALARIES IN REGULAR SALARY CITIES

Cities	Elementary Salaries 1919-1920	Number of Teachers	Mean Salary 1919-1920	Elementary Salaries 1925-1926	Number of Teachers	Mean Salary 1925-1926	Per Cent of Increase
Birmingham, Ala.	$506,761	633	$800.52	$1,020,133	829	$1,230.56	53.7%
New Haven, Conn.	601,838	621	969.14	1,144,289	635	1,802.03	85.9
Indianapolis, Ind.	1,203,140	1,008	1,282.87	2,103,975	1,170	1,798.27	40.2
Grand Rapids, Mich.	504,898	466	1,083.47	772,052	484	1,595.15	47.2
[illegible], Minn.	978,955	714	1,371.09	1,240,630	895	1,386.18	1.1
[illegible], Tex.	351,067	549	639.47	1,075,218	716	1,501.70	134.8
Salt Lake City, Utah	739,414	636	1,162.60	857,536	647	1,309.95	12.7
Seattle, Wash.	1,608,299	1,083	1,485.04	2,032,074	1,138	1,785.65	20.2
Group Average			$1,099.28			$1,551.19	41.1%
Long Beach, Calif.	252,780	196	1,187.65	728,321	374	1,947.38	63.9
Pasadena, Calif.	253,320	192	1,319.38	605,883	373	1,624.35	23.1
Sacramento, Calif.	374,886	288	1,301.69	637,164	334	1,907.68	46.6
Augusta, Ga.	138,342	218	634.60	230,600	242	952.89	50.2
Cicero, Ill.	163,044	142	1,148.20	262,948	206	1,276.45	11.2
Oak Park, Ill.	154,579	151	1,023.70	306,967	232	1,325.13	29.2
Peoria, Ill.	256,969	311	858.42	411,059	308	1,334.61	55.5
Rock Island, Ill.	117,180	131	894.50	115,736	88	1,315.18	47.0
Springfield, Ill.	309,666	258	1,200.26	409,469	305	1,342.52	11.8
Kokomo, Ind.	94,406	103	916.56	138,082	122	1,131.82	23.5
Muncie, Ind.	113,205	134	844.81	227,209	160	1,420.06	68.1
South Bend, Ind.	300,316	256	1,173.11	446,780	285	1,567.65	33.6
Council Bluffs, Ia.	136,946	153	895.07	218,027	162	1,345.85	50.4
Davenport, Ia.	277,528	241	1,151.57	224,078	163	1,374.71	19.4
Topeka, Kans.	197,405	197	1,002.06	310,504	198	1,568.20	56.5
Battle Creek, Mich.	191,013	160	1,193.85	205,270	147	1,396.39	11.7
Bay City, Mich.	167,500	171	979.53	215,920	161	1,341.12	36.9
Binghamton, N. Y.	260,127	204	1,275.13	586,654	368	1,594.17	25.0
Charlotte, N. C.	114,328	116	985.59	331,276	275	1,204.64	22.2
Lima, O.	131,464	163	806.53	205,599	148	1,395.94	73.1
Allentown, Pa.	303,940	257	1,182.65	486,000	314	1,547.77	30.9
Hazleton, Pa.	137,031	150	913.54	177,743	136	1,306.93	43.1
Lancaster, Pa.	125,377	146	858.75	215,959	150	1,439.73	67.7
Austin, Tex.	77,084	109	707.19	144,924	147	985.88	39.4
El Paso, Tex.	249,992	242	1,033.02	500,897	399	1,255.38	21.5
Portsmouth, Va.	159,491	174	916.61	205,841	179	1,149.95	25.5
Charleston, W. Va.	116,227	186	624.88	239,172	191	1,252.21	100.4
Kenosha, Wis.	119,926	165	1,211.67	244,014	171	1,426.98	17.8
Racine, Wis.	209,847	184	1,140.47	242,642	155	1,565.43	37.3
Superior, Wis.	253,606	144	1,622.26	179,135	133	1,346.88	-17.0
Group Average			$1,033.44			$1,388.06	34.3%
Danbury, Conn.	82,822	72	1,150.31	121,568	71	1,712.23	48.8
Bloomington, Ill.	79,488	105	757.03	145,899	111	1,314.41	73.6
Jacksonville, Ill.	49,784	52	957.38	44,375	44	1,008.52	5.3
Mattoon, Ill.	40,517	58	698.57	45,290	44	983.86	40.8
Freeport, Ill.	65,725	68	966.54	101,088	71	1,423.77	47.3
Michigan City, Ind.	53,781	63	853.67	95,400	60	1,590.00	86.3
Gary, Ind.	217,076	164	1,323.63	638,850	320	1,996.41	50.8
Independence, Kans.	67,950	64	1,061.72	71,490	51	1,401.76	32.0
Pittsburg, Kans.	65,319	81	806.41	77,477	68	1,139.37	41.3
Auburn, Me.	67,249	83	810.23	91,785	98	936.56	15.6
Mankato, Minn.	30,343	33	919.48	46,895	35	1,339.86	45.7
Sedalia, Mo.	59,370	86	690.35	97,647	93	1,049.97	52.1
Helena, Mont.	69,362	62	1,118.74	74,169	42	1,765.93	57.8
Long Branch, N. J.	77,490	74	1,045.95	120,990	74	1,635.00	56.3
Rome, N. Y.	77,494	91	851.58	150,945	102	1,479.85	73.8
Asheville, N. C.	68,600	103	666.02	210,244	182	1,155.19	73.4
Grand Forks, N. D.	66,826	73	815.42	71,056	49	1,450.12	58.4
Cambridge, O.	46,795	69	678.19	85,655	74	1,157.50	70.7
Enid, Okla.	45,795	73	627.33	78,231	79	990.27	57.9
Sioux Falls, S. D.	95,156	125	761.09	237,952	168	1,416.38	86.1
Rutland, Vt.	33,458	39	857.90	40,362	34	1,187.12	38.4
Yakima, Wash.	102,331	78	1,311.94	130,162	82	1,587.34	21.0
Eau Claire, Wis.	54,071	70	772.44	92,095	88	1,046.53	35.5
Appleton, Wis.	67,277	73	921.60	58,014	58	1,000.24	8.5
Janesville, Wis.	46,752	48	974.00	57,800	46	1,256.52	29.0
Manitowoc, Wis.	53,732	51	1,053.96	98,496	70	1,407.09	33.5
Group Average			$905.83			$1,324.30	46.2%
Total Average			$989.83			$1,362.55	59.7%
						P.E. 21.17	

TABLE 14 (*Continued*)

High School Salaries 1919-1920	Number of Teachers	Mean Salary 1919-1920	High School Salaries 1925-1926	Number of Teachers	Mean Salary 1925-1926	Per Cent of Increase
$134,353	111	$1,210.39	$494,454	286	$1,728.86	42.8%
192,750	127	1,517.72	403,664	188	2,147.14	41.5
554,726	294	1,886.82	1,132,728	434	2,609.97	38.3
266,337	185	1,439.66	279,105	121	2,306.65	60.2
400,824	186	2,154.97	558,328	241	2,233.73	3.7
148,551	135	1,100.38	504,000	271	1,859.78	69.0
164,153	122	1,345.52	238,771	130	1,836.70	36.5
633,836	351	1,805.80	1,006,613	455	2,216.73	22.8
		$1,557.66			$2,117.45	35.9%
138,597	90	1,539.97	407,455	144	2,829.41	83.7
185,825	106	1,753.05	514,649	264	1,949.43	11.2
150,950	84	1,797.02	281,635	107	2,632.10	46.5
63,556	45	1,412.36	127,030	68	1,868.09	32.3
101,517	79	1,285.03	203,694	107	1,903.68	48.1
41,121	38	1,082.13	62,700	33	1,900.00	75.6
90,860	60	1,514.33	199,453	99	2,014.68	33.0
29,541	29	1,018.66	67,475	40	1,686.88	65.6
48,778	40	1,219.45	101,150	61	1,658.20	36.0
95,553	53	1,802.89	138,627	62	2,235.92	24.0
47,370	38	1,246.58	134,348	82	1,638.39	31.4
67,710	43	1,574.65	119,150	55	2,166.36	37.6
81,038	47	1,724.21	98,212	49	2,004.32	16.2
63,465	39	1,627.31	98,547	52	1,891.29	16.2
54,500	58	939.66	91,470	54	1,693.89	80.3
65,896	52	1,228.77	153,400	74	2,072.97	68.7
22,815	25	912.60	77,166	50	1,543.32	69.1
58,594	55	1,065.35	129,694	71	1,826.68	71.5
79,651	52	1,531.75	164,000	79	2,075.95	35.5
28,945	23	1,258.48	55,072	30	1,835.73	45.9
52,423	40	1,310.58	99,095	49	2,022.35	54.3
67,641	76	890.01	95,184	72	1,322.00	48.5
58,981	54	1,092.24	111,447	72	1,547.88	41.7
40,541	45	900.91	90,232	59	1,529.36	69.8
22,077	36	613.25	74,551	50	1,491.02	143.1
34,215	20	1,142.50	69,851	39	1,791.05	56.8
62,324	51	1,222.04	90,281	41	2,201.98	80.2
119,162	69	1,726.99	125,677	79	1,590.85	-7.9
		$1,301.17			$1,890.14	45.5%
28,889	19	1,520.47	52,703	26	2,027.04	33.3
44,252	36	1,229.22	88,958	50	1,779.16	44.7
23,039	18	1,279.94	44,675	29	1,540.52	20.3
14,400	12	1,200.00	18,897	14	1,349.79	12.4
34,244	26	1,317.08	61,150	32	1,910.94	45.1
15,564	13	1,197.23	47,735	30	1,591.17	32.9
49,402	36	1,372.28	174,892	72	2,429.06	77.0
			57,985	28	2,070.89	
22,411	21	1,067.19	55,692	32	1,740.38	63.1
17,797	18	988.72	42,014	30	1,400.47	41.6
41,274	33	1,250.73	51,978	21	1,522.76	21.7
25,143	24	1,047.63	64,102	42	1,526.24	45.7
36,650	20	1,832.50	30,850	16	1,928.13	5.2
28,679	22	1,303.59	67,967	30	2,265.57	73.8
23,734	19	1,248.16	42,092	27	1,558.96	24.9
36,768	22	1,671.27	97,675	62	1,575.40	-5.7
35,865	27	1,328.33	52,614	30	1,753.80	32.0
21,600	20	1,080.00	38,850	25	1,554.00	43.9
53,592	33	1,624.00	67,131	35	1,918.03	18.1
49,519	37	1,338.35	106,171	61	1,740.51	30.0
21,894	21	1,042.57	39,821	22	1,810.05	73.6
51,333	36	1,425.92	70,653	38	1,859.29	30.1
40,490	37	1,094.33	73,606	40	1,840.15	68.2
42,005	32	1,312.66	60,006	33	1,818.36	38.5
32,792	35	936.91	57,000	30	1,900.00	102.8
43,892	33	1,330.06	71,591	41	1,746.12	31.3
		$1,281.57			$1,775.26	38.5%
		$1,326.77			$1,871.29	41.0%
					P.E. 26.49	

other group, but in 1925-26 the same single salary cities paid their high school teachers an average of $12.05 more than did the second group of cities.

While the differences in salaries paid to elementary teachers and also to high school teachers are too small to be statistically significant, the fact that in each case the single salary cities paid less in 1920 and more in 1926 is interesting. The percentage of increase shown for the elementary salaries of the single salary group is 50.5 and for the regular salary group, 39.7. For the high school salaries, the percentages are 44.8 and 41.0, respectively.

Similar data were not available for the period since 1926 and to bring the salary figures to date material was secured from the tabulations of the National Education Association in which median salaries are given by cities for 1923, 1925, 1927, and 1929. Tables 15 and 16 show these medians and the averages (means) of them for forty-seven regular salary cities and fifty single salary cities. The averages for single salary cities were higher in every case except three, the elementary average for 1923 and the high school averages for 1923 and 1925. In no case for the elementary or high school is the difference in average of medians as much as $100. In the case of the elementary salaries, the difference in 1928-29 was $61.00 ± $38.97. This gives a Critical Ratio of 1.195 which indicates that there are 79 chances in 100 that the difference is real and in the same direction.

For the high school salaries, the difference is found to be $42 in favor of the single salary cities but the P.E. of this difference is $45.32 giving a Critical Ratio of only .92. There are 73 chances out of 100 that this difference is more than chance and that it is positive.

If, as these data indicate, the single salary cities did pay higher salaries to the elementary teachers in 1926 but are now paying very slightly if any more, the cities that have not adopted this type of salary schedule must have increased their salaries without the schedule as much as have those cities using the schedule. Either the single salary schedule does not increase salaries markedly and the increase is the result of other factors or the adoption of such schedules by a part of the cities brings about a reflected increase in all cities.

TABLE 15. MEDIAN SALARIES IN REGULAR SALARY CITIES

Cities	Elementary School Teachers					Junior High School Teachers					Senior High School Teachers				
	1923	1925	1927	1929	Per Cent Increase	1923	1925	1927	1929	Per Cent Increase	1923	1925	1927	1929	Per Cent Increase
New Haven, Conn.	$1,540	$1,544	$1,822	$1,822	18.3%		$1,763	$2,008	$2,083		$2,051	$2,175	[illegible]	[illegible]	13.7%
Indianapolis, Ind.	1,904	1,930	1,990	2,010	5.6						2,550	2,766	[illegible]	[illegible]	7.1
Grand Rapids, Mich.	1,541	1,678	1,837	2,000	30.0						1,987	2,191	[illegible]	[illegible]	14.7
St. Paul, Minn.	1,602	1,687	1,700	1,719	7.3	2,450	1,856	1,866	1,967		2,193	2,295	[illegible]	[illegible]	4.9
Omaha, Nebr.	1,827	1,883	2,037	2,100	14.9						2,115	2,151	[illegible]	[illegible]	13.4
Dallas, Tex.			1,649	1,782									[illegible]	[illegible]	
Seattle, Wash.	1,901	1,895	1,958	2,112	11.1				1,794		2,151	2,251	[illegible]	[illegible]	10.8
Group Average	$1,719	$1,770	$1,856	$1,935	12.6%	$2,450	$1,810	$1,937	$1,948		$2,175	$2,305	$2,293	$2,369	8.9%
Long Beach, Calif.	1,695	[illegible]	2,003	2,209	30.3	2,034	2,450	2,584	2,724	33.9	2,500	[illegible]	[illegible]	[illegible]	12.7
Sacramento, Calif.		[illegible]	1,870	1,934			2,200	2,280	2,400			[illegible]	[illegible]		
Peoria, Ill.		[illegible]	[illegible]	1,533								[illegible]	[illegible]	[illegible]	
Rock Island, Ill.	1,240	[illegible]	[illegible]	1,500	21.0		1,539	1,546	1,576		1,686	[illegible]	[illegible]	[illegible]	20.0
Kokomo, Ind.		[illegible]	[illegible]	1,194								[illegible]	[illegible]		
Gary, Ind.	1,732	[illegible]	1,790	1,804	4.2						2,150	[illegible]	[illegible]	[illegible]	19.0
South Bend, Ind.	1,549	[illegible]	[illegible]	1,693	9.3	706	1,791	1,885	2,013	185.1	2,155	[illegible]	[illegible]	[illegible]	9.2
Council Bluffs, Ia.		[illegible]	[illegible]	1,382								[illegible]	[illegible]		
Davenport, Ia.	1,537	[illegible]	1,530	1,548	0.7	1,703	1,758	1,793	[illegible]	8.2	2,066	[illegible]	[illegible]	[illegible]	3.2
West Waterloo, Ia.	1,328	[illegible]	[illegible]	1,356	2.1				[illegible]		1,750	[illegible]	[illegible]	[illegible]	-3.2
Topeka, Kans.	1,600	[illegible]	[illegible]	[illegible]	7.5	1,600	1,600	1,650	[illegible]	5.1	1,900	[illegible]	[illegible]	[illegible]	7.5
Binghamton, N. Y.	1,471	[illegible]	[illegible]	[illegible]	22.6			1,700	[illegible]		1,734	[illegible]	[illegible]	[illegible]	17.1
Lima, O.		[illegible]	[illegible]	[illegible]			1,409	1,396	[illegible]			[illegible]	[illegible]	[illegible]	
Allentown, Pa.	1,322	[illegible]	[illegible]	1,640	24.8				[illegible]		1,856	[illegible]	[illegible]	[illegible]	33.0
Hazleton, Pa.	1,172	[illegible]	[illegible]	[illegible]	33.5		1,525	1,588	[illegible]		1,720	[illegible]	[illegible]	[illegible]	11.9
Lancaster, Pa.			[illegible]	[illegible]				1,675	[illegible]				[illegible]	[illegible]	
Austin, Tex.	1,429	1,371	[illegible]	[illegible]	-24.5			1,188	[illegible]				[illegible]	[illegible]	
El Paso, Tex.	1,246	1,354	[illegible]	[illegible]	12.8	1,450	1,513	1,475			1,642	1,805	[illegible]	[illegible]	1.0
Lynchburg, Va.		1,200	[illegible]	[illegible]				1,430				1,600	[illegible]	[illegible]	
Portsmouth, Va.	1,047	1,068	[illegible]	[illegible]	42.1						1,384	1,525	[illegible]	[illegible]	30.7
Charleston, W. Va.	1,181	1,258	[illegible]	[illegible]	11.5	1,348	1,397	1,450	1,485	10.2	1,650	1,671	[illegible]	[illegible]	2.3
Kenosha, Wis.		1,446	[illegible]	[illegible]			[illegible]	1,772	1,868			1,958	[illegible]	[illegible]	
Racine, Wis.	1,600	1,647	1,733	1,657	4.2	1,817	1,851	1,855	1,857	2.2	2,121	2,119	2,118	[illegible]	0.2
Group Average	$1,410	$1,442	$1,484	$1,549	9.9%	$1,523	$1,719	$1,704	$1,808	18.7	$1,879	$1,927	$1,974	$2,031	8.1%
Danbury, Conn.		1,531	[illegible]	1,767								1,814	[illegible]	2,150	
Muncie, Ind.		1,315	[illegible]	1,458			1,267	1,567	1,639			1,565	[illegible]	1,781	
Independence, Kans.		1,321	[illegible]				1,364	1,365				1,633	[illegible]		
Pittsburg, Kans.			[illegible]	[illegible]				1,314	1,295				[illegible]	1,767	
Mankato, Minn.		1,324	[illegible]	1,428			[illegible]	1,395	1,450			1,556	[illegible]	1,583	
Sedalia, Mo.		1,018	[illegible]									1,508	[illegible]		
Helena, Mont.			[illegible]										[illegible]		
Long Branch, N. J.	1,469	1,619	[illegible]	1,850	25.9			2,006	2,125		1,650	1,733	[illegible]	2,375	43.9
Grand Forks, N. D.	1,400	1,440	[illegible]	1,471	5.1		1,438	1,420	1,400		1,792	1,800	[illegible]	1,783	-0.5
Enid, Okla.			[illegible]	1,094				1,168	1,097				[illegible]	1,683	
Sioux Falls, S. D.	1,439	1,486	[illegible]	1,527	6.1			1,588	1,575		1,980	1,957	[illegible]	2,000	1.0
Yakima, Wash.	1,453	1,508	[illegible]	1,475	1.5		1,570	1,700	1,615		1,813	1,918	[illegible]	1,947	7.4
Eau Claire, Wis.			[illegible]	1,088					1,146				[illegible]	1,900	
Manitowoc, Wis.			[illegible]					1,588					[illegible]		
Group Average	$1,440	$1,396	$1,404	$1,427	-.9 %		$1,403	$1,511	$1,482		$1,809	$1,720	$1,802	$1,897	4.9%
Seymour, Conn.	1,515	1,125	1,317	1,350	-10.9	1,250	1,433	1,550			1,600	1,600	1,463	1,533	4.2
Oskaloosa, Ia.			1,275	1,274					1,430				1,680	1,656	
Midland, Mich.	1,150	1,180	1,279	1,343	16.8	1,360	1,425	1,458	1,617	18.9	1,625	1,725	1,813	1,700	4.6
Lancaster, N. Y.		1,656	1,720	1,815			1,600	1,700	1,917			1,650	1,850	2,063	
Burlington, N. C.			1,210	1,190									1,550	1,575	

Since the single salary cities paid higher salaries in 1926 than did the others and since the percentage of current expenditures going to salaries was not significantly higher, it is reasonable to assume that these cities have found means of increasing the salary of the individual teacher without expending a proportionately larger amount of their budget for salaries. The most logical explanation of this condition would be that the number of pupils per teacher has increased more rapidly where the single salary is in operation than in other cities.

Tables 17 and 18 show the number of teachers reported and the enrollment in the elementary schools of thirty-five single salary cities and thirty-five regular salary cities for 1919-20 and 1925-26. These data indicate a slightly larger number of pupils per teacher in the regular salary cities in 1919-20 and the reverse in 1925-26. For these cities, there has been an average decrease of 1.2 pupils per teacher in the single salary cities and an average decrease of 3.05 pupils per teacher in the regular salary cities. The average for single salary cities in 1919-20 was 36.9 $\pm$ 1.3 and in 1925-26 it was 36.7 $\pm$ .66. In the regular salary cities, the averages were 37.3 $\pm$ 1.38 and 35.7 $\pm$ .45, respectively. The difference then in 1919-20 was .4 $\pm$ 1.89, with the difference in 1925-26 reversed and increased to 1.0 $\pm$ .79. This later difference gives a Critical Ratio of 1.26. This means that there is no statistical significance so far as these data are concerned, there being 81 chances in 100 that the difference is real and positive.

If there is such a difference as one pupil per teacher, it means that the single salary cities of over 30,000 population employed from three to thirty-five fewer teachers in their elementary schools to do the same amount of work as was done in the regular salary cities. This would mean that for the same expenditure of money each of these single salary cities could pay each of their elementary teachers $45 more per year than was paid in the regular salary cities. This would amount to two-thirds of the difference in average salary as computed from the data.

While the above conclusion may be assailed from a statistical standpoint, it is supported by the reports of the superintendents. In the questionnaire sent to superintendents, information was asked as follows:

TABLE 16. MEDIAN SALARIES IN SINGLE SALARY CITIES

Cities	Elementary School Teachers					Junior High School Teachers					Senior High School Teachers				
	1923	1925	1927	1929	Per Cent Increase	1923	1925	1927	1929	Per Cent Increase	1923	1925	1927	1929	Per Cent Increase
Denver, Colo.	$1,950	$2,024	$2,103	$2,203	13.0%	$1,965	$2,115	$2,185	$2,420	23.2%	$2,225	$2,436	$2,711	$2,812	26.4%
Bridgeport, Conn.	1,664	1,735	1,743	1,833	10.2						1,990	2,141	3,197	2,338	17.5
Des Moines, Ia.		1,817	1,824	1,835			2,010	2,040	2,027			2,221	2,245	2,302	
Minneapolis, Minn.	1,696	1,810	1,938	2,009	18.5	1,831	2,000	2,030	2,040	11.4	2,053	2,220	2,215	2,464	20.0
Portland, Ore.	1,767	1,759	2,049	2,182	23.5						2,100	2,043	2,243	2,248	7.0
San Antonio, Tex.	1,236	1,385	1,384	1,590	28.4		1,382	1,432	1,708		1,622	1,720	1,806	2,009	23.9
Spokane, Wash.	1,710	1,722	1,733	1,747	2.2						2,081	2,074	2,059	2,038	- 2.1
Group Average	$1,671	$1,750	$1,824	$1,914	14.5%	$1,898	$1,876	$1,922	$2,049	8.0%	$2,012	$2,122	$2,225	$2,316	15.1%
Berkeley, Calif.	$1,915	$1,930	$2,224	$2,243	17.3	$2,237	$2,269	$2,559	$2,578	15.2	$2,239	$2,288	$2,545	$2,593	15.8
San Diego, Calif.	1,823	1,910	2,011	2,024	11.2	1,976	2,150	2,153	2,237	13.2	2,400	2,516	2,460	2,489	3.7
Colorado Springs, Colo.		1,860	1,886	2,000			1,992	2,127	2,211			2,275	2,438	2,575	
Decatur, Ill.		1,410	1,424	1,478			1,547	1,595	1,610			1,668	1,759	1,743	
Rockford, Ill.	1,314	1,447	1,500	1,529	16.4		1,655	1,692	1,750		1,823	1,929	1,972	1,986	8.9
Hammond, Ind.		1,613	1,600	1,689								1,965	2,005	1,992	
Terre Haute, Ind.	1,422	1,546	1,632	1,649	16.0	1,504	1,600	1,792	1,910	27.0	1,687	1,805	1,939	1,945	15.3
Cedar Rapids, Ia.		1,285	1,387	1,429			1,485	1,543	1,613			1,629	1,697	1,788	
Sioux City, Ia.	1,430	1,582	1,641	1,767	23.6	1,713	1,805	1,819	1,865	8.9	2,100	2,100	2,133	2,142	2.0
Lansing, Mich.	1,433	1,419	1,445	1,492	4.1	1,559	1,700	1,589	1,907	22.3	1,817	1,808	1,950	2,027	11.6
Duluth, Minn.	1,486	1,615	1,754	1,788	20.3	1,667	1,857	1,959	2,021	21.2	1,928	2,093	2,283	2,467	28.0
Springfield, Mo.			1,608	1,152				1,275	1,369				1,765	1,760	
Lincoln, Nebr.	1,525	1,627	1,655	1,612	5.8	1,668	1,814	1,700	1,777	6.5	1,992	1,925	2,015	2,032	2.0
Elmira, N. Y.		1,600	1,839	1,835			1,656	2,013	2,036			1,813	2,026	2,048	
Muskogee, Okla.	1,285	1,288	1,304	1,325	3.3	1,392	1,457	1,517	1,563	12.3	1,594	1,594	1,536	1,660	4.1
Oklahoma City, Okla.		1,828	1,832	1,771			1,841	1,800	1,819			2,279	2,280	2,369	
Harrisburg, Pa.		1,569	1,785	2,051		1,379	1,891	2,034	2,322	68.4		2,283	2,423	2,680	
Newport News, Va.			1,378	1,525									1,758	1,920	
Petersburg, Va.		1,225	1,500	1,508					1,517			1,300	1,750	1,833	
Tacoma, Wash.	1,804	1,817	1,824	1,846	2.3		1,850	1,844	1,867		2,134	2,212	2,220	2,245	5.2
Huntington, W. Va.		1,570	1,782	1,825			1,925	1,917	1,975			1,948	2,432	2,426	
Green Bay, Wis.		1,324	1,379	1,430			1,474	1,590	1,695			1,830	1,865	1,917	
La Cross, Wis.	1,450	1,500	1,543	1,650	13.8	1,554	1,613	1,658	1,800	15.8	1,808	1,864	1,921	1,983	9.8
Group Average	$1,535	$1,569	$1,649	$1,679	9.4%	$1,665	$1,767	$1,809	$1,878	12.8%	$1,956	$1,968	$2,050	$2,114	8.1%
Fort Smith, Ark.	$1,339	$1,149	$1,142	$1,171	-12.5				$1,342		$1,788	$1,[illegible]	$1,381	$1,420	-20.6
Peru, Ind.		1,303	1,335	1,386								1,[illegible]	1,730	1,692	
Richmond, Ind.	1,440	1,388	1,393	1,394	- 3.2	1,562	1,600	1,661	1,705	9.2	1,711	1,771	1,836	1,857	8.5
Hutchinson, Kans.		1,396	1,419	1,423			1,600	1,660	1,658			2,[illegible]	2,110	2,075	
Lawrence, Kans.	1,240	1,271	1,365	1,280	3.2	1,490	1,525	1,600	1,650	10.7	1,673	1,[illegible]	1,860	1,893	13.2
Ann Arbor, Mich.		1,827	1,760	1,791				1,938	1,900			2,[illegible]	2,360	2,400	
St. Cloud, Minn.	1,506	1,360	1,217	1,227	- 6.0	1,333	1,475	1,550	1,425	6.9	1,685	1,7[illegible]	1,750	1,832	8.9
Grand Island, Nebr.	1,117	1,135	1,238	1,286	15.1		1,500	1,640	1,620		1,572	1,[illegible]	1,767	1,788	13.7
Asbury Park, N. J.	1,444	1,486	1,627	1,685	16.7						1,900	1,[illegible]	1,967	2,138	12.5
Aberdeen, S. D.	1,350	1,362	1,517	1,530	13.3	1,484	1,500	1,625	1,630	9.8	1,750	1,[illegible]	1,850	2,007	14.7
Parkersburg, W. Va.	1,409	1,650	1,710	1,650	17.1	1,439	1,630	1,717	1,739	20.8	1,903	1,[illegible]	2,100	2,130	12.9
Beloit, Wis.	1,215	1,233	1,275	1,290	6.3	1,374	1,431	1,427	1,529	11.3	1,592	1,[illegible]	1,844	1,717	7.9
Fond du Lac, Wis.		1,417	1,445	1,503			1,575	1,625	1,706			1,[illegible]	1,781	1,800	
Madison, Wis.		1,574	1,699	1,845			1,750	1,875	1,971			1,[illegible]	2,237	2,288	
Sheboygan, Wis.	1,197	1,397	1,462	1,454	21.5				1,720		1,700	1,[illegible]	1,929	1,920	12.9
Group Average	$1,306	$1,397	$1,440	$1,461	11.9%	$1,447	$1,559	$1,665	$1,661	14.8%	$1,727	$1,811	$1,886	$1,930	11.8%
Watertown, Conn.	$1,143	$1,285	$1,300	$1,310	14.6						$1,525	$1,600	$1,650	$1,767	15.9
Oelwein, Ia.			1,207	1,194				1,425	1,467				1,588	1,667	
Munising, Mich.	1,233	1,267	1,363	1,520	23.3	1,500	1,650	1,650			1,750	1,700	1,800	1,600	- 8.6
Medina, N. Y.		1,519	1,630				1,[illegible]	1,[illegible]							

TABLE 17

PUPILS PER TEACHER IN ELEMENTARY SCHOOLS—SINGLE SALARY CITIES

CITY	Teachers 1919–20	Pupils Enrolled 1919–20	Pupils per Teacher 1919–20	Teachers 1925–26	Pupils Enrolled 1925–26	Pupils per Teacher 1925–26	Change in Pupils per Teacher
Denver, Colo	923	31,177	33 8	846	29,004	34.3	+ .5
Bridgeport, Conn	487	21,173	43.5	545	21,084	38 7	− 4.8
Des Moines, Ia.	537	17,637	32.8	516	16,730	32 4	− .4
Louisville, Ky.	674	26,084	38.7	818	32,805	40.1	+ 1.4
Minneapolis, Minn.	1,357	45,353	33 4	1,240	46,199	37.3	+ 3 9
Portland, Ore	978	35,823	36 6	1,115	41,664	37 4	+ 8
San Antonio, Tex.	484	21,484	44 4	465	20,593	44 3	− .1
Spokane, Wash.	457	16,787	36 7	479	17,079	35 7	− 1.0
Berkeley, Calif	292	8,257	28.3	199	7,388	37 1	+ 8.8
San Diego, Calif	300	9,226	30 8	348	12,524	36 0	+ 5 2
Colorado Springs, Colo.	128	5,628	44 0	120	4,287	35.7	− 8.3
Decatur, Ill	175	6,572	37 6	168	6,640	39.5	+ 1 9
Joliet, Ill.	202	6,489	32 1	156	6,048	38.8	+ 6.7
Rockford, Ill	306	8,598	28 1	203	7,707	38 0	+ 9 9
Hammond, Ind.	126	4,445	35 3	203	7,207	35 9	+ 6
Terre Haute, Ind	274	9,856	36 0	220	8,006	36 4	+ 4
Cedar Rapids, Ia.	210	6,314	30.1	153	4,908	32 1	+ 2 0
Sioux City, Ia.	248	8,026	32.4	291	8,607	29 6	− 2 8
Flint, Mich	335	12,033	35 9	510	12,691	24 9	−11.0
Jackson, Mich	115	4,375	38.0	143	4,866	34 0	− 4.0
Kalamazoo, Mich.	193	6,022	31.2	158	4,974	31.5	+ .3
Lansing, Mich.	207	8,070	39 0	199	8,126	40 8	+ 1.8
Duluth, Minn	312	13,769	44 1	367	13,185	35 9	− 8.2
St. Joseph, Mo.	295	11,294	38 3	303	11,187	36 9	− 1.4
Springfield, Mo.	153	8,124	53 1	151	7,526	50.0	− 3 1
Elmira, N Y.	151	4,989	33 0	160	5,304	33 2	+ .2
Wilmington, N. C.	122	5,037	41 3	160	5,853	36.6	− 4.7
Winston-Salem, N. C.	136	7,319	53.8	303	10,075	33 3	−20.5
Lakewood, O.	154	3,990	25 9	181	5,503	30 4	+ 4.5
Muskogee, Okla.	130	6,117	47.1	132	4,880	37 0	−10 1
Oklahoma City, Okla	380	15,426	40.6	366	15,449	42 2	+ 1.6
Harrisburg, Pa.	231	10,313	44 6	207	8,520	41.2	− 3 4
Newport News, Va	101	4,771	47 2	109	4,522	41.5	− 5 7
Petersburg, Va	105	4,779	45.5	107	4,452	41.6	− 3.9
Tacoma, Wash.	359	14,518	40.4	301	12,316	40.9	+ .5
Average Number Pupils per Teacher			.36 9 ± 1 30			36.7 ± .66	
Average Change in Pupils per Teacher							− 1.2

TABLE 18

PUPILS PER TEACHER IN ELEMENTARY SCHOOLS—REGULAR SALARY CITIES

CITY	Teachers 1919–20	Pupils Enrolled 1919–20	Pupils per Teacher 1919–20	Teachers 1925–26	Pupils Enrolled 1925–26	Pupils per Teacher 1925–26	Change in Pupils per Teacher
Birmingham, Ala.	633	29,615	46 8	829	38,418	46 3	− .5
New Haven, Conn	621	22,814	36 7	635	24,988	39.4	+ 2.7
Indianapolis, Ind	1,008	36,065	35 8	1,170	43,185	36 9	+ 1.1
Grand Rapids, Mich.	466	13,465	28.9	484	13,043	26 9	− 2.0
St Paul, Minn	714	25,891	36 3	895	27,190	30 4	− 5.9
Dallas, Tex	549	18,031	32 8	716	32,038	44.7	+11.9
Salt Lake City, Utah	636	22,915	36 0	647	18,952	29.3	− 6 7
Seattle, Wash	1,083	40,611	37 5	1,138	44,715	39 3	+ 1.8
Long Beach, Calif.	196	8,524	43.5	374	12,563	33.6	− 9 9
Pasadena, Calif.	192	6,568	34 2	373	10,747	28 8	− 5.4
Sacramento, Calif.	288	9,284	32.2	334	10,004	30 0	− 2.2
Augusta, Ga	218	7,763	35 6	242	10,563	43.6	+ 8 0
Cicero, Ill.	142	6,376	44.9	206	8,126	39.4	− 5.5
Oak Park, Ill	151	5,070	33 6	232	6,637	28 6	− 5 0
Peoria, Ill.	311	9,581	30 8	308	9,719	31 6	+ .8
Rock Island, Ill.	131	4,411	33 7	88	3,444	39 1	+ 5 4
Springfield, Ill.	258	9,089	35 2	305	8,520	27 9	− 7.3
Kokomo, Ind	103	5,256	51.0	122	5,547	45 5	− 5.5
Muncie, Ind	134	5,311	39.6	160	5,390	33 7	− 5.9
South Bend, Ind.	256	8,282	32 4	285	10,140	35 6	+ 3.2
Council Bluffs, Ia.	153	5,796	37.9	162	6,574	40 6	+ 2 7
Davenport, Ia.	241	7,635	31.7	163	4,983	30 6	− 1.1
Topeka, Kans.	197	7,004	35.6	198	7,220	36.5	+ 9
Battle Creek, Mich.	160	5,134	32 1	147	5,140	35 0	+ 2 9
Bay City, Mich	171	5,785	33.8	161	4,528	28.1	− 5 7
Binghamton, N. Y.	204	7,968	39.1	368	9,967	27.1	−12 0
Charlotte, N. C.	116	8,124	70 0	275	10,211	37 1	−32.9
Lima, O.	163	5,688	34.9	148	5,273	35 6	+ .7
Allentown, Pa.	257	10,228	39 8	314	11,457	36.5	− 3.3
Hazelton, Pa.	150	5,913	39 4	136	4,825	35.5	− 3 9
Lancaster, Pa.	146	6,351	43.5	150	6,635	44 2	+ .7
Austin, Tex	109	4,584	42 1	147	5,647	38 4	− 3.7
El Paso, Tex.	242	11,303	46 7	399	12,924	32.4	−14.3
Portsmouth, Va.	174	8,300	47.7	179	7,425	41 5	− 6.2
Charleston, W. Va.	186	6,991	37.6	191	6,296	33.0	− 4 6
Average Number Pupils per Teacher			37 3 ± 1.38			35.7 ± .45	
Average Change in Pupils per Teacher							−3 05

Indicate below any methods used during the past three years to prevent an increase or effect a decrease in the amount expended for instructional service. (Check methods used.)

1. Employment of substitute teachers to replace regular classroom teachers.
2. Increase of class size.
3. Reduction in number of teachers.
4. Employment of new teachers at or near the minimum salary.

The following table gives the percentages of superintendents reporting who indicated they had used each of the methods. The numbers refer to the key above.

Class	1	2	3	4	2 + 3	1, 2, 3 or 4
Single Salary Cities	9 0	28.4	26.9	47.8	41.8	61.2
Regular Salary Cities	6.3	22.2	9.5	39.7	25.4	49.2

The four methods were tabulated separately and since Methods 2 and 3 were so nearly identical they were tabulated together. There were four of the sixty-seven single salary cities in which all methods have been used and one of the regular salary cities in which this is true.

Of the cities reporting, then, 48 per cent of the single salary cities have increased the number of pupils per teacher during the past three years as compared with 25 per cent of the regular salary cities. There is no data to show how much this increase amounted to but, as was stated before, an increase of one pupil per teacher will allow an increase of $45 per teacher in any size school, assuming that the average salary is about $1,600 as found for 1928-29.

As to method 4, it is not possible to state the extent of this practice in any one school. The percentage of superintendents reporting the use of this method was large in each group of cities, being 47.8 per cent in the single salary cities and 39.7 per cent in the regular salary cities.

Tables 19 and 20 assist in gaining an idea of the use of the method of employing teachers at or near the minimum salary. Table 19 shows the minimum and maximum salaries for the several classes of training for eight of the single salary cities of

TABLE 19

Salary Schedules for Eight Large Single Salary Cities

Cities	Under Normal School Graduation High School + 1 Year			Normal School Graduation High School + 2 Years			Three Years Beyond High School			A.B. Degree			A.M. Degree		
	Minimum	Maximum	Increase	Minimum	Maximum	Increase	Minimum	Maximum	Increase	Minimum	Maximum	Increase	Minimum	Maximum	Increase
Denver, Colo.		$1,800	6 x $100	$1,200	$2,040	7 x $120	$1,200	$2,280	9 x $120	$1,350	$2,880	10 x $150	$1,350	$3,080	$150 to maximum
Bridgeport, Conn.				1,000	2,100	11 x 100		2,300		1,400	2,600	12 x 100		3,100	
Des Moines, Ia.				1,200	1,860	6 x 110	1,370	2,210	7 x 120	1,500	2,590	8 x 130	1,740	3,000	9 x 140
Louisville, Ky.				1,200	2,000	8 x 100				1,500	2,500	10 x 100			
Minneapolis, Minn.				1,200	2,000	8 x 100				1,500	2,500	10 x 100			
Portland, Me.				1,300	2,200	4 x 50 (7 x 100)				1,600	2,400	4 x 50 (6 x 100)	1,700	2,500	(4x50) (6x100)
San Antonio, Tex.				966	1,656					1,196	1,932		1,380	2,206	
Spokane, Wash.				1,200	1,700	10 x 50	1,350	1,850	10 x 50	1,500	2,000	10 x 50	1,650	2,150	10 x 50

TABLE 20

SALARY DISTRIBUTIONS FOR EIGHT LARGE SINGLE SALARY CITIES

Cities	Years	Elementary Median	Number of Teachers Reported in 1928-1929	ELEMENTARY																								
				Below $900	$900	$1,000	$1,100	$1,200	$1,300	$1,400	$1,500	$1,600	$1,700	$1,800	$1,900	$2,000	$2,100	$2,200	$2,300	$2,400	$2,500	$2,600	$2,700	$2,800	$2,900	$3,000
Denver, Colo.	1924-1925	$2,024						16	40	30	44	39	37	59	95	85	21	60	17	61	110	46				
	1926-1927	2,103						4	33	37	28	31	3	57	38	106	46	67	9	35	63	52	22	42		4
	1928-1929	2,203	715					7	33	17	45	39	2	53	31	101	27	72	6	48	65	57	14	86	1	11
Bridgeport, Conn.	1924-1925	1,735				34	44	43	31	29	42	21	23	237												
	1926-1927	1,743				35	38	52	42	38	27	29	34	16	21	206	2	1	5	5						
	1928-1929	1,833	566			13	45	47	34	48	33	39	17	21	31	15	207	5	2	2	1	6				
Des Moines, Ia.	1924-1925	1,817				3	3	15	19	28	65	44	67	84	112	36	21	15	3	1						
	1926-1927	1,824						25	19	45	57	37	37	75	73	65	23	10	4	5	1					
	1928-1929	1,835	443					1	39	53	13	57	35	67	71	60	21	10	7	7	2					
Louisville, Ky.	1924-1925	1,330						359	120	122	101	72	3	7	1	4										
	1926-1927	1,383						201	268	98	165	75	41													
	1928-1929	1,489	809					187	112	118	184	100	50	36	20	2										
Minneapolis, Minn.	1924-1925	1,810				3	6	58	84	93	105	126	98	87	67	399	17	17	3	1						
	1926-1927	1,938				11	5	34	67	59	86	90	93	104	79	474	14	9	16	11	6					
	1928-1929	2,009	1,087			10	8	38	56	40	73	69	62	65	71	543	9	9	16	2	13	2	1			
Portland, Ore.	1924-1925	1,759						39	104	85	67	41	244	364	17											
	1926-1927	2,049		3	1	2	2	2	20	64	52	88	91	97	81	143	458	16	24	1		1				
	1928-1929	2,182	1,091			1	2	1	22	47	41	49	80	77	78	66	100	481	12	33	1					
San Antonio, Tex.	1924-1925	1,385			53	19	64	38	65	37	52	112	7	2	5	4										
	1926-1927	1,384			65	23	33	42	77	58	35	102	9	2	3											
	1928-1929	1,590	504			110		4	28	32	87	69	109	17	13	33	1		1							
Spokane, Wash.	1924-1925	1,722						14	21	43	53	50	168	45	24	14	3									
	1926-1927	1,733						10	29	38	58	49	166	61	28	25	10	2								
	1928-1929	1,747	441					16	27	26	35	46	151	72	27	29	11	1								

TABLE 20 (*Continued*)

Cities	Years	High School Median	Number of Teachers Reported in 1928-1929	HIGH SCHOOL												SCHOOL											
				Below $1,300	$1,300	$1,400	$1,500	$1,600	$1,700	$1,800	$1,900	$2,000	$2,100	$2,200	$2,300	$2,400	$2,500	$2,600	$2,700	$2,800	$2,900	$3,000	$3,100	$3,200	$3,300	$3,400	$3,500
Denver, Colo.	1924-1925	$2,436			15		10	13	1	20	15	8	13	13	4	47	26	14	13	32	4	10					
	1926-1927	2,711			2		8	14		16	12	7	19	12	2	18	11	4	44	58	2	31					
	1928-1929	2,812	255		3		5	6		9	14	5	11	13		23	17	●	12	78	1	58					
Bridgeport, Conn.	1924-1925	2,141		3		7	4	5	8	7	10	11	27	14	16	7	6	5	2								
	1926-1927	2,197			2	5		8	7	9	11	24	15	16	18	15	9	8	3	5	5		1				
	1928-1929	2,338	177			3	4	4	6	9	9	9	19	19	17	16	19	18	10	1	6	4	2		1		1
Des Moines, Ia.	1924-1925	2,221					3	9	8	19	21	23	26	38	28	20	20	11	8								
	1926-1927	2,345				1	4	7	6	6	7	9	13	18	29	15	21	20	10	1	1						
	1928-1929	2,302	195			2	4	8	6	10	8	17	19	23	32	14	17	14	12	9							
Louisville, Ky.	1924-1925	1,845		2	26	17	17	19	24	20	29	26	17	9	5	5		12									
	1926-1927	1,973		2	8	4	18	24	29	26	24	47	24	17	15	3	4	3	9								
	1928-1929	2,118	232	1	3	3	13	13	17	13	27	22	22	15	29	12	16	13	5	5	3						
Minneapolis, Minn.	1924-1925	2,220		1	5		14	14	13	20	25	22	21	25	14	10	92	4									
	1926-1927	2,215		10	5	4	14	27	29	38	40	94	45	43	42	43	178	10	2	1							
	1928-1929	2,464	542	13	5	1	12	15	20	28	17	49	22	47	26	25	25	28	2								
Portland, Ore.	1924-1925	2,043						66	42	26	35	23	158	8													
	1926-1927	2,243		2		5	1	13	57	24	20	28	29	45	163	10											
	1928-1929	2,248	439	11		4	1	40	52	33	18	16	29	32	38	151	14										
San Antonio, Tex.	1924-1925	1,720		18	12	8	7	27	10	13	39	4	1	7	1		1										
	1926-1927	1,806		8	7	5	8	20	7	8	31	6		11													
	1928-1929	2,009	166	17		2	7	7	31	9	6	46	9	2	25	2	2			1							
Spokane, Wash.	1924-1925	2,074					13	6	8	10	21	40	41	13	8	7	6	2									
	1926-1927	2,059					11	8	15	17	24	43	51	8	11	7	5	1									
	1928-1929	2,038	177		1		11	6	17	21	15	46	53	7													

more than 100,000 population and Table 20 shows the distributions of salaries for three different years for the elementary and high school teachers of the same cities.

There is much variation in the numbers of teachers reported at or near the minima and at or near the maxima. In Denver there are only forty of the 715 elementary teachers reported at or below the $100 interval containing the minimum for the Bachelor's degree. In the same city, ninety-eight elementary teachers are reported as receiving salaries at or above the interval containing the maximum salary paid to the Bachelor's degree. In Bridgeport, there are 139 of the 566 elementary teachers reported below the Bachelor's degree minimum and only six at or above the interval containing the Bachelor's degree maximum. In Minneapolis, there are just half of the elementary teachers reported in the interval containing the maximum for the two-year normal group and only sixteen of the 1,087 at or above the Bachelor's degree maximum. In the same city, fifty-six of the elementary teachers are at or below the stated minimum for the two-year normal group. In Des Moines, there are ninety-three of the 443 elementary teachers below the minimum for the Bachelor's degree and only two in the interval containing the maximum for the same degree.

Here are three cities which have had the single salary schedule in operation longest and one which has adopted it more recently and the variation is as great between the former cities as between any other pair. Local conditions, such as the amount available for salaries and the degree to which adjustment is made to local needs, are probably more responsible for the fact that teachers are employed at or near the minimum salary than that the salaries are paid according to a single salary schedule.

Summary

1. There is evidence to show that the single salary schedule has not operated to increase the percentage of total current expenditures going to teachers' salaries.

2. While the percentages of expenditures for salaries going to the elementary teachers has decreased each biennium, probably due to increased junior high school and senior high school expenditures, there is no evidence to show that the single salary schedule has in any way affected this change.

3. In 1919-20, the differences in mean salaries paid to the elementary teachers of the single salary group and those paid to the teachers in the regular salary cities were insignificant. In 1925-26, the differences had increased to \$92.93 ± \$31.03, the single salary cities paying the higher salaries. This difference shows a Critical Ratio of 2.994.

4. The salaries paid to high school teachers in 1919-20 were lower in the single salary cities but slightly higher in 1925-26. The difference at the later period was not significant but the increase is shown to be greater for this group of cities.

5. In 1928-29, the differences in the median salaries paid have less significance than those for the means in 1925-26. The single salary cities are still slightly higher for the particular cities studied, however.

6. There are 81 chances in 100 that the regular salary cities have reduced the size of classes more than have the single salary cities. A difference of one pupil per teacher would make possible an increase of \$45 per year for each teacher in the elementary schools.

7. Superintendents of 48 per cent of the single salary cities report the use of reduction of number of teachers or increase in the size of classes as a means of keeping down the cost of instruction as compared with 25 per cent of the superintendents of regular salary cities.

8. There is a tendency in each group of cities to employ teachers at or near the minimum salary, the larger percentage reporting this from the single salary group.

9. The single salary cities increase their salaries without at the same time increasing the amounts going to instructional service by several methods.

CHAPTER V

ADMINISTRATIVE PRACTICE

The administration of a salary schedule is affected by several factors including the simplicity of the schedule itself, the adequacy with which it answers all possible questions, and the degree to which it is self-operating, or automatic. The single salary schedule may be easy or difficult to administer, depending upon the degree to which these factors are cared for. It has been intimated by both those who favor such a schedule and those who are opposed to it that the single salary schedule is easy to operate. Some state this as an argument for its adoption, others condemn the schedule because they feel that it eliminates the necessity for the administrator to pass judgment upon any teacher as to her worth. Some of the schedules now in operation are so simple as to be almost independent of the administrator and may be handled entirely by the clerk in the central office. Others have so many qualifying conditions that they are even more difficult to operate than most of the more traditional schedules. The simplicity of a schedule may defeat its purpose and, on the other hand, an overabundance of detail may make it so unwieldly that it will be evaded.

The two common bases of all single salary schedules are training and experience. How are these bases used in present schedules? Do they merely make up a kind of sorting machine whereby the teachers are placed in definite categories as to salary, or are they so controlled that the training and experience of a teacher rather than her salary are used to determine her worth?

It has been contended by some since the beginning of the single salary that it was incompatible with the retention of desirable men teachers. Others have more recently taken up this point and are arguing that equal pay between the sexes is unsound because of the law of supply and demand. What are schedule makers doing to care for this matter?

When a single salary schedule is developed and put into operation is it necessary to evade its provisions in order that the work of the school may not suffer? Are increased salaries paid in order to secure or retain particularly desirable teachers?

It is such questions as these that the administrator who has the schedule or who anticipates its adoption wishes to have answered and which this chapter attempts to answer in the light of reported practices.

Does the administrator know what training his teachers have or are securing while in his service? Data presented in Chapter II indicated that the relation between the work of the teacher in the school and the courses she takes for credit is not close. In order to determine the reason for this condition, the superintendents were asked the following question: "When granting a salary increase because of increased amounts of academic or professional training, what means do you employ to control the kind or amount of that training?" Six possible answers were suggested:

1. No control.
2. Prescription of courses in advance.
3. Approval of the teacher's selection of courses.
4. Evaluation of courses after they have been taken.
5. Consideration of the college grades or marks.
6. Rating of the college or normal school attended.

Sixty-four superintendents of single salary cities replied to this question. Of these, fourteen reported that no control was exercised. Of the other fifty, fourteen indicated that courses were prescribed in advance, thirty-seven approved the teacher's selection of courses, twenty evaluated the courses after they had been taken, eight gave some consideration to the college grades or marks, and eleven considered the college or normal school from which the credits were secured. Twenty-six checked two or more methods of control. Of the twenty-four indicating the use of only one method, sixteen approved the selection of the teacher as to the courses to be taken, five evaluated the courses after credit had been secured and three indicated that the rating of the college or normal school attended influenced the credit given on the salary schedule.

Dr. James Hosic, in an address before the National Educa-

tional Association in 1924, reported the results of a study he had made of the single salary schedule in which he found that there was little control of the training on which salary was adjusted other than the superintendents approval of the courses selected by the teacher.[1] Conditions in this respect may have changed some since 1924, but the fact that almost one-fourth of those replying to the question admit no control and another fourth admit that the only control exercised is approval of the teacher's selection of courses indicates that the change has not been great.

William F. Webster spoke to the point that the kind of training rather than the amount was the important factor to the administration when he said:

> I would not wish any to think that I do not believe in degrees; I do. But what is of more importance to the administrator is wisdom that comes from definite study directed to the problems that a teacher has to meet. Then if study leads toward a degree, so much the more fortunate for the student.
>
> I am further convinced that elementary schools are better served by graduates from normal schools than by graduates of colleges of education. . . . Study is valuable when it concerns the work a teacher is doing. . . , but study to secure a degree may easily subtract from a teacher's efficiency and worth. I am not advocating advance in salary on the basis of parchment alone.[2]

The regulations of the training of teachers in service vary as indicated by the following excerpts from salary schedules:

1. Only such educational qualifications and teaching experience will be credited as can be fairly estimated to fit the teacher for the type of work he is to do. A similar ruling will be maintained relative to credits earned through correspondence, extension, and summer school courses.
2. Credits submitted for salary increase after the initial salary is determined must be approved for such increase by the superintendent. At least half of such work should be such as will contribute directly to the efficiency of the work of the teacher. For instance, a teacher of mathematics should not submit credits in Spanish for salary increase, etc.
3. In every case, to be placed in any particular class, a teacher must present training such as to qualify her directly for the work which she is to handle. Training shall be evaluated by the superintendent of schools.
4. No teacher shall be remunerated as stated above except for work which has been approved by the superintendent of schools and the school committee.

[1] Hosic, James. "The Single Salary Schedule in Practice." *Addresses and Proceedings of the National Education Association*, pp. 371-77, 1924.

[2] Webster, Wm. F. "The Single Salary Schedule." *Department of Superintendence, Official Report*, pp. 226-28, February, 1926.

5. All credits for professional work and all credits for summer travel are to be approved by the superintendent of schools before becoming the basis for salary increases.

6. Courses taken to count toward any fifteen point unit for college unit class promotion shall be approved by the supervising principal in writing before being taken, otherwise the courses will not be credited on this plan.

7. Any educational credit to count on an increase of salary for a session must be filed at the office of the superintendent on or before the first teaching day of the session.

These examples represent three types of statement found in salary schedules. In the first type, there is a rather definite statement as to the kind of training that is approved without any reference to any check on this by the superintendent of schools or any other authority. In the second type, the superintendent is to approve the selection of courses either before or after they have been taken and, in the third type, it is simply necessary to file a report of credit on or before the opening of school.

It must be remembered that these regulations represent only a fraction of the single salary schedules. There is a fourth in which no control of any kind is exercised.

Two other types of regulations regarding the training in service are illustrated in the following excerpts. The first attempts to force the teacher to take training periodically and the second limits the amount of training she may secure during a given period.

1. To receive the increment provided for under the schedule each teacher must spend at least six weeks every third summer in study or travel approved by the Superintendent.

2. No teacher is to receive any increase after the first, regardless of ratings, who has not taken an accredited university course in Education within the past three years. Any teacher failing to take an accredited university course in Education once in five years shall be automatically eliminated.

3. Teachers who have taught five years without attending a summer school, or its equivalent, and earning credit in at least two subjects studied for a minimum of five and one-half weeks, with a minimum of twenty-two recitation hours per term in each, will not be eligible for reappointment.

4. Not more than sixteen semester hours a year will be granted where the applicant is teaching full time. This provides for four hours each semester and eight hours of summer work.

5. Full time teachers will be permitted to earn in extension classes, including correspondence courses, four semester hours or six quarter hours,

during any semester. In very exceptional cases, on special request, the superintendent may grant permission to take a larger number of hours.

Several in writing of the single salary schedule have warned against making the schedule so inflexible that special adjustment of salary would be impossible. To discover the extent of the use of such special adjustments, the superintendents were asked the following question: "If special adjustments are made in order to employ, retain, or reward particularly desirable teachers, how is the matter handled?" These answers were suggested:

1. Give extra weight to the teacher's experience.
2. Give extra weight to the teacher's training.
3. Give additional title, such as, Debate Coach, Assistant Athletic Coach, Stage Director, etc.
4. Special ruling by the board.
5. Special provision in the schedule.
6. Special rating of the teacher.

Fifty-four superintendents replied to the above question. Of these, fifteen checked answer 1; eighteen, answer 2; twenty-eight, answer 3; nineteen, answer 4; twenty-seven, answer 5; and sixteen, answer 6. Thirty-nine, or more than two-thirds of them indicated that they found it necessary to use more than one method for extra remuneration of teachers. Many of the schedules now in operation provide for such needs. This is evident from the fact that one-half of those answering this question stated that there was provision in the schedule for handling the matter. The following are examples of such provisions in the schedule:

1. This schedule is to be considered as a minimum and is not to be construed as preventing the superintendent of schools from recommending and the Board of Education from granting additional compensation to either men or women over and above the amounts provided in the schedule.
2. While these qualifications and salaries shall be observed generally, the Board of Education reserves the right to vary therefrom as circumstances may require.
3. The Board of Education reserves the right to elect teachers to special appointment independent of schedule.
4. In fields in which the supply of competent teachers is so limited as to make it impossible to satisfactorily fill positions at the entering salaries stated, the Board of Education may, on recommendation of the superintendent, make exceptions to these entering salaries. In every case, the annual increment and the maximum salary of the teacher shall be as otherwise provided in the salary schedule.

5. The Board reserves the right to employ any teacher at a higher salary than that to which he or she would be entitled on the scale in recognition of conspicuous ability, special work assigned, advanced college degrees, or for any other reason which may appear sufficient to the Board.

6. Upon recommendation of the superintendent, the Board may pay salaries in excess of the above schedule, but each such case shall be considered in the light of a pre-dating of service awards.

Nineteen of the superintendents replying to the above question stated that special salary adjustments were made by giving extra weight to the teacher's experience or training or both. Such a solution merely amounts to advancing the salary of a desired teacher to the point where it will induce that teacher to sign a contract. It is evidence of the insufficiency of the schedule in overcoming the law of supply and demand so that the superintendent may pay what is necessary to staff his school as he considers best.

Thirty-six of the superintendents who found special adjustment necessary indicated the number of teachers receiving salaries above schedule and the amounts of such increases. They reported from one to twenty-eight teachers in each city and a total of 209 teachers from all cities with an average increase of $332.30 per teacher. Of these teachers reported, 120 were men receiving an average of $430.83 above schedule and eighty-nine were women who received an average of $199.44 above schedule. The advances per teacher ranged from $50 to more than $1,000. The median increase for the men was $380.00; for the women it was $159.21.

Russell A. Sharp of Northeast High School, Kansas City, Missouri, in addressing the Department of Superintendence in 1926 stated that the percentage of men teachers in our schools had decreased from 43 per cent in 1880 to 16 per cent in 1918. He felt that the single salary schedule and the retention of desirable men were incompatible and that the percentage of men teachers would be still further reduced by such a schedule.[3]

Tables 21 and 22 were developed to study the effect of the single salary schedule upon the retention of men. Table 21 gives the number of men teachers, the number of women teachers, and the percentage of men in each of the thirty-three single salary cities over 30,000 population for 1919-20 and for 1925-26. Table

[3] Sharp, Russell A. "Disadvantages and Fallacies in the Single Salary Schedule." *Department of Superintendence, Official Report*, pp. 217-21, February, 1926.

TABLE 21

PERCENTAGE OF MEN TEACHERS—SINGLE SALARY CITIES

CITY	Men Teachers 1919–20	Women Teachers 1919–20	Percentage of Men	Men Teachers 1925–26	Women Teachers 1925–26	Percentage of Men
Denver, Colo.	86	1,236	6.5%	145	1,388	9.5%
Bridgeport, Conn.	36	603	5.6	49	724	6.3
Des Moines, Ia.	104	775	11.8	96	821	10.5
Louisville, Ky.	84	852	9 0	134	1,027	11.5
Minneapolis, Minn.	200	1,704	10.5	230	2,126	9.8
Portland, Ore.	154	1,179	11.6	198	1,401	12.4
San Antonio, Tex.	46	589	7.2	101	757	11.8
Spokane, Wash.	91	543	14.4	104	574	15.3
Group Average 1*			9.6			10.9
Little Rock, Ark.	26	358	6 8	26	315	7.6
Berkeley, Calif.	51	362	12.3	64	403	13.7
San Diego, Calif.	64	365	14 9	108	611	15.0
Colorado Springs, Colo.	17	159	9.7	37	210	15.0
Decatur, Ill.	21	212	9.0	41	281	12.7
Joliet, Ill.	9	193	4.5	9	188	4.6
Rockford, Ill.	45	344	11.6	44	359	10 9
Hammond, Ind.	17	155	9.9	43	274	13.6
Terre Haute, Ind.	41	334	10 9	64	382	14.3
Cedar Rapids, Ia.	18	300	5.7	33	333	9.0
Sioux City, Ia.	27	394	6.4	36	500	6.7
Flint, Mich	19	404	4.5	70	738	8.7
Jackson, Mich.	21	195	9.7	31	228	12.0
Kalamazoo, Mich.	33	248	11.7	52	285	15.4
Lansing, Mich.	21	268	7.3	81	349	18.8
Duluth, Minn.	38	512	6.9	56	590	8.7
St. Joseph, Mo.	32	347	8.7	32	395	7.5
Springfield, Mo.	14	199	6.6	35	239	12.8
Lincoln, Nebr.	25	354	6.6	31	362	8.6
Elmira, N. Y.	21	194	9.8	28	228	10.9
Wilmington, N. C.	3	135	2.2	9	199	4.3
Winston-Salem, N. C.	8	153	5.0	38	357	9.6
Lakewood, O.	39	224	14.8	58	304	16.0
Muskogee, Okla.	20	155	11.4	28	201	12.2
Oklahoma City, Okla.	37	477	7.2	94	622	13.1
Group Average 2*			8.6			11.3
TOTAL AVERAGE			8.8±.36			11.2±.38

* Group Average 1 is for cities over 100,000 in population.
Group Average 2 is for cities between 30,000 and 100,000 in population.

TABLE 22

PERCENTAGE OF MEN TEACHERS—REGULAR SALARY CITIES

CITY	Men Teachers 1919–20	Women Teachers 1919–20	Percentage of Men	Men Teachers 1925–26	Women Teachers 1925–26	Percentage of Men
Birmingham, Ala.	43	701	5 8%	102	1,013	9.1%
New Haven, Conn.	85	743	10.3	104	881	10.6
Indianapolis, Ind.	152	1,164	11.6	397	1,207	24 8
Grand Rapids, Mich.	70	690	9 2	135	858	13.6
St Paul, Minn.	79	951	7 7	128	1,297	9.0
Dallas, Tex.	51	651	7.3	95	923	9.3
Salt Lake City, Utah	63	733	7.9	82	892	8.4
Seattle, Wash.	178	1,309	12.0	233	1,424	14.1
Group Average 1*			9.0			12 4
Long Beach, Calif.	44	259	14.5	108	651	14.2
Pasadena, Calif.	44	283	13.5	177	615	19.8
Sacramento, Calif.	36	360	9.1	80	485	14.2
Augusta, Ga.	27	254	9 6	29	307	8 6
Cicero, Ill.	4	138	2.8	10	196	4.8
Oak Park, Ill.	4	147	2 6	10	245	3 9
Peoria, Ill.	42	370	10.2	38	403	8.6
Rock Island, Ill.	12	157	7.1	17	155	9.9
Springfield, Ill.	26	292	8 2	41	372	9 9
Kokomo, Ind.	22	110	16.6	23	139	14.2
Muncie, Ind.	14	160	8.0	43	224	16 1
South Bend, Ind.	20	321	5.9	61	447	12 0
Council Bluffs, Ia.	10	196	4.9	26	235	10.0
Davenport, Ia.	35	268	11.6	42	288	12.7
West Waterloo, Ia.	4	84	4.5	10	103	8.8
Topeka, Kans.	19	229	7.7	27	276	8 9
Battle Creek, Mich.	22	196	10.1	31	217	12.5
Bay City, Mich.	25	216	10.4	39	258	13.1
Binghamton, N. Y.	13	272	4.6	16	454	3 4
Charlotte, N. C.	7	134	5.0	19	362	5.0
Lima, O.	23	204	10.1	35	235	13 0
Allentown, Pa.	73	244	23.1	83	319	20 6
Hazelton, Pa.	28	145	16.2	37	191	16 2
Lancaster, Pa.	28	161	14.8	42	212	16 5
Austin, Tex.	18	170	9.6	27	239	10.2
Group Average 2*			9.6			11.5
TOTAL AVERAGE			9.5±.48			11.7±.54

*Group Average 1 is for cities over 100,000 in population.
Group Average 2 is for cities between 30,000 and 100,000 in population.

22 gives the same information for an equal number of cities using the traditional schedule. There was found to have been an increase in the percentage of men teachers in each group of cities. In the cities of over 100,000 population, the percentages found showed a slightly greater increase for the regular salary cities while in the smaller cities the increase was slightly greater in the single salary cities. For the groups taken as units the percentage was shown to be 8.8 per cent in the single salary cities in 1919-20 and for the same year it was 9.5 per cent for the regular salary cities. This was a difference of .7 per cent with the P.E. of the difference being .60. This gives a Critical Ratio of 1.16. In the year 1925-26, the percentages had increased to 11.2 per cent in the single salary cities and 11.7 per cent in the regular salary group. This difference is .5 per cent with the P.E. of the difference .668, giving a Critical Ratio of .75. There are 78 chances in 100, then, that the regular salary cities had a larger percentage of men in 1919-20 than did the single salary cities, while there are only 69 chances in 100 that this was true in 1925-26.

From these data, therefore, we cannot conclude that the single salary schedule has effected a reduction in the percentage of men teachers employed. Mr. Sharp's argument was that equal pay for men and women would reduce the number of men unless the salary was adjusted to the man's level. In that case, he contends, the cost would be excessive. We have found that the administrators of single salary schedules have avoided an increase in cost and now we find that they have also avoided equal pay to men and women in many cases.

Replies from fifty-one single salary cities and forty-seven regular salary cities to the following question have been tabulated: "Are there positions in your school system in which men receive higher salaries than women of equal training and experience?" Of the fifty-one single salary cities thirty-one, or 60.78 per cent, answered in the affirmative and of the forty-seven regular salary cities twenty-five, or 53.19 per cent, answered the same way. It would seem, then, that the use of a so-called single salary schedule does not deter the school systems from paying men more than women when necessary.

This matter is handled in different ways. Some by one subterfuge or another pay the men more without allowing the salary

schedule to recognize the fact. The men are given some slight extra duties, or sometimes, only an additional title. Such procedure is necessary where equal pay is required in the schedule. A considerable number of cities, however, agree with McGaughy [4] and others in the belief that the law of supply and demand makes it necessary to pay men more than women and they are writing the fact in their salary schedules.

The following statements are illustrative of the ways in which salary schedules are caring for the problem of more pay for men:

1. For the purpose of equating supply and demand differences between male and female teachers, all male teachers shall be upgraded five years with reference to both minimum and maximum salaries.
2. The salaries of principals, supervisors, teachers in special departments, and men employed in high schools will be set by the Board of Education.
3. This schedule does not apply to male teachers.
4. Add: For men not to exceed $250.
   For married men not to exceed $500.
   For department heads not to exceed $300.
5. Men receive $400 more than women.
6. The salaries of supervisors, principals and of men teachers are not governed by the above schedule.
7. The general salary tabulations will be modified to allow for additional increments as indicated below:

Heads of Departments	$ 50.00
Teachers of Special Classes	$100.00
Elementary Principals	$ 50.00–150.00
Men	$200.00–400.00

8. Men teachers, other than principals, shall receive an additional $30.00 per month.
9. The Board of Education believes that a considerable per cent of the teachers in the upper grades and in the high school should be men, and, having found from experience that they are more difficult to obtain, reserves the right to pay an additional amount above the schedule when necessary to secure the services of exceptionally well qualified men for the grades mentioned.
10. Between the sexes there should be, whenever possible, equal pay for equal service, equal training, equal experience, and equal work.

Some of these make no pretence of attempting to cover the fact that they pay extra amounts to men teachers, while others give the impression, as in example 6, that the writers have at-

[4] McGaughy, J. R. "The Movement Toward Scientific Salary Schedules." *Teachers College Record*, pp. 752-59. Bureau of Publications, Teachers College, Columbia University.

tempted to place the word *men* in such an inconspicuous place that it may be overlooked by some casual readers.

Some educators feel that there can be no single salary schedule unless it includes equal pay for both sexes. Others believe that conditions necessitate a double salary schedule which is single in so far as either sex is concerned but which is consistently higher for men teachers. These contrary views are illustrated by the following quotation from a superintendent in a single salary city of the second type.

> If I am not mistaken, the general notion or idea of the single salary schedule the country over is that equal pay is paid for similar positions to all, male and female alike. There is, however, another conception of the single salary schedule, which pays equal salaries for similar training, experience, and efficiency; but which makes some differentiation for sex. Whatever others may feel in regard to the matter, I have felt that this idea fits a little more closely the general welfare of the schools and particularly the school children than the one in general acceptance. I doubt if there ever will come a time when a straight out-and-out salary schedule as is usually advocated would be desirable. Here in . . . we have about 95 per cent. of our faculty women. I believe this percentage holds pretty generally over the country. To me the need of a little more even proportion of the sexes in the classroom seems imperative. About the only way to remedy the present situation is to incorporate in the salary schedule a differentiation in favor of the men. If, in time, it should happen that the proportion ran the other way, then this differentiation should favor the women. I believe this is the only sound, sane, and sensible basis upon which to base our principles of salary determination, and that this, together with the provision that similar training, experience, and effectiveness, receive like recognition, comes pretty close to what might be termed the ideal single salary schedule.

One superintendent upon adopting the single salary schedule stated that he would employ more men since he could secure them for the same pay. Many would question the quality of the men secured under the circumstances. There is no evidence available on the quality of the men working under the equal pay plan but, as long as the law of supply and demand is operating and conditions are as they are at present, it is reasonable to believe that highly competent men will not be secured at as low salaries as highly competent women.

The situation in this regard is comparable to marketing apples. The producer may put all the apples through a grading machine which separates the apples into different sizes. After this is

done, however, if he wishes to get the full advantage of the New York market, he will sort out the red apples for that city because of the fact that the New York consumer is quite sure that a red apple is more desirable than one that is green or yellow in color. As long as men may secure higher pay than equally competent women they will go where they may receive that pay and the school system offering lower pay will not secure their services.

Summary

1. One-fourth of the superintendents of single salary cities exercise no control over the training secured by their teachers for salary increases. Another fourth exercise no control except in approval of the teacher's selection of courses.

2. Some single salary schedules include regulations covering the kind of training that is to be accredited for salary increase with reference to the position held. Others include regulations covering the amount and frequency of the training that is to be secured while in service.

3. One-half of the superintendents replying state that their schedules include provision for special adjustment of salary where necessary.

4. The mean increase of salary for those men above schedule is $430.83 and the median is $380.00. For the women above schedule the mean advance is $199.44 and the median is $159.21.

5. The percentage of men teachers increased as much between 1920 and 1926 in the cities having single salary schedules as in an equal group of regular salary cities.

6. Of the single salary cities from which replies were received, 60.7 per cent pay higher salaries to men than to women in similar positions.

CHAPTER VI

SUMMARY AND RECOMMENDATIONS

The single salary schedule has been defined for this study as any salary schedule which prescribes the measurement of all teachers in a given system by the same standards and paying according to these measures. Typically the only measures used are the number of years of training above high school and the number of years of teaching experience. This method of paying salaries has been used since 1920 and the number of cities making use of it has increased quite consistently until at the present time between one hundred fifty and two hundred cities are classified as single salary cities.

Since, for salary purposes, the teachers in a single salary system are classified according to the amount of college training they have had, this type of schedule is expected to encourage increased training and to build up the quality of the teaching staff especially in those departments where the training has been lowest. The findings of this study indicate that the teachers of the single salary cities are somewhat better trained than are those of the regular salary cities. The difference is not great, however, and the law of supply and demand has probably caused the cities without such schedules to pay such salaries as will attract better trained teachers. One city can scarcely afford to have less well trained teachers than a neighboring city with which it is continually being compared.

Perhaps the most serious indictment that may be made against the single salary as it is being operated is that attention is given chiefly to the amount of training alone and that too little attention is being given to the kind of training secured. The evidence indicates that the teacher, who is not supervised as to the courses she will pursue, will select those courses which are most readily available to her when such a selection will increase her salary as much as will any other courses. The most common method of control of this matter is that of simply approving the teacher's

selection of courses. However, one-fourth of the superintendents who reported on this point exercise no control whatsoever over the courses offered for credit on the salary schedule.

Some have feared that those who employed the single salary schedule would lower their standards for entering teachers in order that the automatic increases might be given without increasing the budget. It has been found, however, that this has not taken place so far as their official requirements are concerned. The training requirements for entering teachers are not significantly different from those of the cities in which the more traditional schedule is in operation. Further data bearing on this point show that 47.8 per cent of the superintendents of single salary cities employ teachers at or near the minimum as compared with 39.7 per cent of those so reporting from the regular salary cities.

The practice as to the credit to be given for teaching experience as a measure in the salary schedule varies widely. Some are quite free with the credit given for outside experience that is comparable with experience in the local schools while others limit the credit that is to be given for such experience. This is at present a local matter and the proper credit to be given has not been arrived at with any degree of scientific study. In deciding the number of annual increments to be given for experience alone, there is a more reasonable basis for reaching a conclusion. The solution rests upon the number of years over which the improvement of a teacher in service takes place. There is little scientific evidence on this point but the belief is that eight or nine years of experience is the optimum amount in most cases. There is need for more study upon this problem before the number of annual increments to be provided in a schedule may be accurately arrived at. The number at the present time varies from five to as many as seventeen.

The amount of each annual increase is not at all uniform. Some contend that the amount should be uniform for all salary levels so that there would be no discrimination. Others feel that the amount of increase should be proportional to the training of the teacher. These teachers have the higher minima and maxima and should, accordingly, have higher annual increases and reach the maximum more rapidly. The latter view seems the more logical, as an increase of $100 to a teacher who is receiv-

ing a salary of $1,200 is a much greater increase than is the same amount to one who is receiving $3,000.

An increasing number of school administrators are accepting the theory that training and experience are not adequate measures of a teacher's salary rating and are advocating the use of some form of efficiency rating. Such a measure is to be used as a supplementary measure in addition to the number of years of training and the number of years of teaching experience. Superintendents from 69 per cent of the single salary cities reported that some method of rating was in use. Rating of teachers must be considered, however, as being in the experimental stage, as only one-fourth of those using rating scales allowed the rating to influence the salary directly. The difficulty lies in the fact that thus far the rating has been too subjective. This is a matter receiving very serious consideration as a third factor in single salary schedules.

If the single salary schedule operates as its advocates have anticipated, so that teachers receive more or less automatic increases until the maximum salaries are reached and then have the opportunity of increasing their training and thereby raising their maximum salaries, the amount expended for a given number of teachers' salaries would continually increase until all who would had reached the maxima. It would follow, then, that teachers' salaries would represent larger and larger percentages of the current expense. Unless other cities have so increased their salaries that the percentages have kept parallel with those in the single salary cities, the percentages in the latter group should show larger increases.

Data presented herewith show that the expenditures for salaries do not represent a larger portion of the current expense in the single salary cities than in other cities. Also these data show that the elementary teachers are receiving as large a portion of the total salary expenditure in the cities without the single salary as in those having such a schedule. The effect of the schedule should be most obvious in that department of the school where the pay has been lowest and where the teachers have been least well trained.

Even though the data mentioned above indicate no greater expenditures because of the single salary schedule, the mean salaries of the elementary teachers increased more rapidly from

1920 to 1926 under this type of schedule. The difference in elementary salaries in the two groups of cities was shown to be \$92.92 ± \$31.03 in 1926 in favor of the single salary cities. In 1928-29, however, the difference had decreased to \$61.00 but with a P. E. of \$38.97 so that the difference is not statistically significant.

For high school teachers the difference in salaries has not been statistically significant at any period since the beginning of the single salary idea but the increase in salaries paid high school teachers has been greater in the particular single salary cities studied than in the regular salary cities selected.

Both groups of cities have decreased the average number of pupils per teacher in the elementary schools between 1920 and 1926 but indications are that the decrease has been less in the single salary cities. This difference was about one pupil per teacher. In using the significant difference technique, however, there are shown to be 19 chances in 100 that this difference is not positive and real. In light of the fact that there was an increase in salaries and not a comparable increase in total salary expenditures, it is more reasonable to accept the above solution as being significant. It is also further supported by the fact that 48 per cent of the superintendents of single salary cities have increased the number of pupils per teacher during the past three years as compared with 25 per cent of the regular salary city superintendents so reporting.

The difference in pupils per teacher, however slight, must be seriously considered because of the effects of an increase of but one pupil per teacher. The average salary paid to elementary teachers in the cities studied in 1928-29 was slightly more than \$1,600. The average number of pupils per teacher is now between thirty and forty. Therefore an increase of one pupil per teacher would make possible an increase of between one-fortieth and one-thirtieth of a teacher's salary, which would amount to between \$40.00 and \$55.00. Since \$100 is a common annual increment the above amounts would represent a large portion of the increase. It may also be noted that this increase possible with one more pupil per teacher is almost equal to the difference as computed between the salaries paid in the regular salary cities and those paid in the single salary cities.

Another factor employed to keep down the rising cost of the

single salary schedule is the employment of teachers at or near the minimum salaries. Although the need for reducing costs has not brought about a lowering in requirements of entering teachers, it is quite possible that the superintendents using the single salary have found it necessary to employ more teachers near this minimum requirement than they might otherwise do. The regular salary cities have also used this method of reducing costs to a considerable extent.

We may conclude from these data that funds have not been available to carry out all the features of the single salary schedule and that superintendents have found it necessary, therefore, to employ different methods to keep the costs down.

In addition to the necessity for keeping costs down, the superintendents have found it necessary to evade the stricter provisions of the schedule in order to secure or retain desirable teachers. Fifty-four of the sixty-seven superintendents reporting from single salary cities state the methods used for making special salary adjustments. Of these more than half give extra weight to the teacher's training or experience. This is little more than a salary increase to secure the teacher's services. Another half give the increased salary through the bestowing of an additional title, such as, stage director or debate coach. This may or may not be a mere subterfuge to evade the issues of the schedule. Half of them also state that they have provided for the need through special provisions in the schedule. More than two-thirds of these superintendents have used two or more of the several methods for allowing a salary above schedule.

Thirty-six superintendents reported from one to twenty-eight teachers above schedule. The amounts above schedule varied from $50 to more than $1,000. The average for the one hundred and twenty men reported was $430.83 above schedule and for the eighty-nine women the average amount above schedule was $199.44.

The single salary schedule does not seem to have affected the percentage of men teachers employed. The percentage has increased in both groups of cities and at an equal rate. The data show only the percentage of men teachers in the whole system and do not differentiate between departments. Also nothing has been shown as to the type of men employed under a single salary schedule. There is reason to believe, however,

that superintendents have cared for this matter by paying men more than women in order to secure those considered desirable. This is evident from the fact that 60.7 per cent of the superintendents of single salary cities reported positions in which men received more than women in similar positions.

Economists may not approve of the supporting principle of the single salary schedule and may insist that teaching service be purchased on the open market according to the dictates of the law of supply and demand. Some school administrators, however, will wish to employ teachers upon some established schedule in which an attempt is made to adjust the salary to the qualifications of the individual teachers. For these some form of single salary schedule will probably seem desirable.

The single salary schedule as now operated will not suffice. Its measures are inadequate and inequitable especially from the standpoint of the better teachers. The number of years of college training is not a fair measure of a teacher's worth. There are two primary faults inherent in this measure. The first is that no college can guarantee that the training given will produce an efficient teacher. The second fault is that there is such a divergence in the quality of the training secured by different individuals at different institutions. After all, what does "four years of college training" mean? To be sure, it means something and the amount of training is not to be ruled out as a measure in the salary schedule, but it is not suitable as an only measure.

It is also desirable to continue the use of annual salary increments for teaching experience. The number to be given cannot be stated until more scientific information on the subject is available. The number will probably continue to be about the number obtained by dividing the difference between a predetermined minimum and a predetermined maximum by one hundred, which represents the number of dollars in the typical increase.

For the more complete success of the single salary schedule improvement in the methods of administration is necessary. It is quite evident that the single salary schedule is not self-operative. It requires careful supervision and administration. The administrator must make a continuing study of his own salary schedule and its operations and after discovering the weaknesses attempt to remedy them.

The most obvious weakness in many schedules is the lack of supervision of the training in service for which salary adjustments are made. Superintendents now feel obligated to weigh the training of candidates with considerable care before selecting new teachers. They do not employ as kindergarten teachers those who have trained primarily in the secondary field. After the teacher has been employed, the superintendent should feel equally obligated to weigh the further training secured by his teachers. There is no more reason for refusing to employ a teacher who does not have appropriate training than there is for refusing to advance a teacher's salary because of training that has no bearing upon her work as a teacher.

No hard and fast rule may be set up for the proposed rating of training in service that is applicable to all situations. In some cases, it would be a good investment of money to increase the salary of an elementary teacher for the study of Spanish. In other situations, such a course could be valuable only as it might further the pursuit of a degree and should not receive a direct financial reward. Some of the cultural courses, so called, may be considered of sufficient value to a teacher to warrant an increase in salary. There are other courses, however, which could not conceivably contribute to the efficiency of a teacher. Payment for such courses cannot be justified unless as preparation for some different work for which the authorities wish to have the particular teacher trained.

As stated before, there is a tendency to use a direct rating of the efficiency of the teacher. Some superintendents will, probably, introduce this as a measure in the single salary schedule. If such a procedure is attempted, it should not be undertaken blindly. Rating scales at the present time are quite subjective and arouse considerable opposition on the part of the teachers. Until such time as a rating scale has been developed that will measure the efficiency of the teacher more objectively, merit rating cannot be recommended as a third measure in the schedule.

In introducing the single salary schedule for the first time or in making changes in a schedule already in operation, the superintendent should be quite familiar with the local conditions. The effect of any administrative device must be measured largely in terms of the effect upon the teaching body. The single salary schedule has not been measured in this respect and a valuable

contribution could, doubtless, be made by a superintendent who would make a continuing study of the schedule in all the phases possible. Such a study should cover a period of several years and should, preferably, begin before the introduction of the single salary schedule.

In making a study, such as has been suggested, accurate data should be kept covering the training and experience of entering teachers, the amount and kind of training secured after entering the system, the amount of special adjustment necessary to adequately remunerate the few most outstanding teachers, and the period at which teachers tend to stop further training. The data must be so kept that the activity of an individual teacher may be followed throughout the period and this information should be kept for a sufficiently large proportion of the teachers in each department of the school to make valid comparisons possible.